Clinical Lecture
ON A
CASE OF HIGH TEMPERATURE, WITH RAPID PULSE AND DELIRIUM,
DEPENDING ON THE PRESENCE OF SCYBALA IN THE RECTUM.

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M. A. H——, female, aged forty-four, admitted Feb. 14th, 1879. Her father died of asthma, a brother of consumption; her mother is alive. She has been married twice; by the first husband she had three children, all of whom are dead, the first dying of consumption, the others soon after birth. By her present husband she has two children, the eldest two years old, the youngest six weeks; she has also had two miscarriages between these two. She has never been strong; she has had brain fever twice. When a girl she had hæmoptysis; is subject to a winter cough; was out-patient two years at Brompton Hospital on account of her chest. Her present illness began with a cough during the last pregnancy. Her confinement, six weeks ago, though rather tedious, was easy; she got up on the tenth day, and went out just a week ago, and got catarrh, which much aggravated her previous cough. The lochia ceased after a week, and she has no discharge now. She has large breasts in a state of physiological hyperæmia, and gives plenty of milk to her babe. She has not grown thinner lately; is well-nourished, dark-haired, not anæmic. Is kept awake at night by continual cough; brings up thick scanty muco-purulent sputa. Thorax moves equally on both sides, and freely on respiration. Expiration in right front is prolonged, and crepitations are heard there; rhonchi in the left. Both backs are resonant, and air enters pretty well. Heart-sounds normal. Pulse weak, 96. Tongue dry and furred, red along edges. Pain is felt at epigastrium on pressure. Appetite bad; is thirsty. Bowels not open without medicine. Temperature on 15th, P.M., 102°; 16th, A.M., 98·6°. To have an enema of castor oil; and a mixture, composed of an ounce of effervescing citrate of potash, four minims of Battley's sedative solution, and three minims of dilute hydrocyanic acid, four times a day.

Feb. 17th.—Breath very short to-day. Respiration 35; temperature last night 103°; this morning 100°.

18th.—Spits up about two ounces of thick muco-pus a day; has not much cough. Has been wandering this afternoon; did not know her baby.

19th.—Temperature last night 102°, this morning 99·4°; respiration 32; pulse 112. She feels hot and moist; face is bedewed with sweat; is unconscious of her surroundings. Last night had no milk for her baby.

20th.—There is some improvement this morning. Last night she was so bad that her friends were sent for. Temperature last night 99°; this morning 99·8°.

21st.—Respiration 44, shallow; pulse 120, very weak.

22nd.—Great improvement this morning. She is quite cheerful. Pulse 126. Both fronts are resonant; in right there is no vesicular murmur, hardly any inspiratory sound, but very prolonged expiration, with rhonchi and large crepitations. In left front there is vesicular murmar and prolonged expiration, with rhonchi and crepitations. Both backs resonant. There is good entry of air, with rhonchi and large crepitations; expiration a little prolonged. Right supra-spinous fossa duller than left; harsh breathing and marked bronchophony in this situation. Expectoration muco-purulent.

26th.—Some ipecacuanha wine and squills given on 24th caused sickness. She was ordered yesterday—nitric acid, two minims; dilute hydrocyanic acid, two minims; disulphate of quinine, one grain; water, one ounce: three times a day. Is not sick to-day. Temperature, morning, 102·4°; pulse 128. Tongue very coated. She cannot take nourishment. She feels much weaker. Trachea painful when handled.

28th.—She seems much better and more cheerful. Takes plenty of milk. Dilute sinapisms to back.

March 3rd.—In both fronts the breath-sounds are fairly good, and the resonance. In both upper backs air enters fairly well, but the expiration is prolonged. In the lower backs air enters very feebly, and expiration is prolonged.

5th.—Is sleepy day and night. Pulse 96, very weak; temperature below 98° for last three days. No vomiting now. Yesterday she had an eruption of urticaria on her limbs; it has disappeared to-day.

13th.—Doing well. Temperature not above normal for over seven days. Expectoration, chiefly mucous, about one ounce and a half in amount. To have a mixture of solution of pernitrate of iron in one ounce of water.

17th.—Since 15th has been suffering from pain in the situation of the left ovary, felt especially when pressure is made above Poupart's ligament in a downward direction; it is not relieved by sinapisms or suppository of belladonna and opium. Chest symptoms have nearly disappeared; spits scarcely anything.

18th.—Pain the same. Vaginal examination discovers several large masses in the rectum; but the uterus seems normal, except that the cervix is rather large; the os is transverse and closed; no pain is felt on pressure except in the left vaginal arch; the temperature of vagina seems increased. A castor-oil enema was ordered, which apparently acted well, and brought away a good deal of solid matter but no lumps. The axillary temperature remained perfectly normal from March 9th to March 19th.

20th.—Pain not relieved by a subcutaneous morphia injection yesterday, nor by a blister after it *loco dolenti*. Temperature has risen considerably; was 102·4° in the morning; is now (4.30 P.M.) 104·1°. Pulse very rapid, 180, and very small and weak. Is delirious; says there is a fire under her pillow. Complained of aching pains all over in the morning. Face is much flushed and rather dusky. Vaginal examination discovers increased heat of the canal, but the uterus appears normal, and only a loaded rectum and some fulness and tenderness in left vaginal arch can be detected. I was at fault; there seemed no adequate cause present for the above detailed formidable symptoms. There were certainly still the fæcal masses in the rectum in spite of the enema given a day or two before, but I did not think they could produce such a storm. My impression was that some one of the exanthemata was brooding. However I ordered a repetition of the castor-oil enema, thinking it would be well anyhow to get rid of the scybala, and I prescribed besides a citrate of potash mixture every four hours, and a quarter of a grain of calomel and half a grain of opium in pill four times a day, and a large continuous poultice over the pelvic region. The enema was given between 5 and 6 P.M. of the 20th, and brought away several large hard lumps. At half-past 6 P.M., temperature, 103·2°, at 10 P.M. 101·8°, and at 9 A.M. on the 21st 100°.

21st.—She passed a comfortable night, only feeling very weak, took an egg and milk and brandy in night. She says she is ever so much better to-day; the pain at left iliac region is nothing like what it was. A second enema has just been given, and has brought away no lumps at all. An enema with twenty minims of tincture of opium has been given after each of the two aperient enemata. Vaginal examination shows the rectum empty and the pelvic contents normal. No delirium since 7 P.M. of 20th. Face much more natural since bowels were cleared; less flushed. Has brought up to-day some muco-purulent expectoration (about three drachms); yesterday had hardly any. Respiration 38; pulse 110, very small and weak; temperature 99·8° at 3 P.M. Calomel and opium omitted. Brandy, six ounces; champagne.

22nd.—She had a comfortable night; but this morning has had three attacks of quasi-epileptic character. The muscles of hands, arms, and throat, but not those of legs, were rigidly contracted; there was also apparent unconsciousness and great flushing of face; the attacks lasted a few minutes. She is very weak; aspect pale; spits up a little muco-pus; had slight diarrhœa yesterday evening. At 7 P.M. temperature went up to 101°, after a visit from a friend, which excited her very much. Pulse 105, of fair force, regular. Tongue indented, whitish. Air enters well in all left back; some obscure crepitations are heard at lower part. In right back air enters less freely; crepitations are heard near the base. Heart-sounds are normal, save that first is very weak. Is not taking food well. Says she feels much better this afternoon; is "better when she can talk a little." Cold cast

wind. Urine light-coloured, clear, not albuminous; specific gravity 1007, neutral.

25th.—Ordered yesterday one grain of calomel with three grains of compound extract of colocynth in the evening. In night, about 12.30, she had another set of spasmodic seizures, just the same as before—had three attacks in half an hour; passed a good night afterwards. Felt very weak this morning after bowels had acted, but is taking her food better; took six oysters for dinner. Pulse 90. Expectoration slight. Catamenia appeared on the 23rd—flow moderate.

For ten days or a fortnight after last date the bronchial catarrh gave trouble; but after this time it subsided gradually and completely. About April 4th she had fits of severe cough of short duration (a few minutes), and at times fits of dyspnœa, apparently asthmatic. Expectoration was about two ounces, mere mucus.

April 8th.—Doing fairly; but has got a "bilious headache" to-day, sees black specks before her eyes; cannot see to read, the letters run together. Is subject to these attacks, which occur very irregularly, sometimes being absent for a long time, sometimes several occurring near together. Expectoration very scanty; cough slight. Temperature keeps below normal.

14th.—Getting on extremely well; lungs almost perfectly clear; spits scarcely anything; looks lively and cheerful. Eight grains of citrate of iron and quinine, ten minims of tincture of nux vomica, in an ounce of water, to be given three times a day. Went out well about a week later.

The first point I would ask you to remark here is that our patient had eminently a *neurotic diathesis*. By this term I mean that her nervous centres were more impressionable than is the case in average individuals; their normal mode of action was more easily deranged; they had less resisting power. On what their instability depended we cannot form even a probable hypothesis. No analysis has as yet revealed to us any defect in the chemical composition of the nerve-cells in such persons, and it does not seem likely that any ever will. During life they are utterly hid from our observation, and the changes that precede and follow death would render any examination of the lifeless structures of very small value. Our best information with regard to the neurotic diathesis consists in our experience of the way in which it is affected by various agents, made worse and intensified by everything that depresses general power, benefited and relieved by the converse. The marks of the neurotic diathesis in this patient were very plain; she had had brain fever (mania or delirium) twice, was subject to migraine, had several epileptoid seizures in the hospital, and at one time stupor and unconsciousness, apparently formidable, but soon passing away. Her father had died of asthma, so that her diathesis was partly inherited, though the particular mode of its manifestation was different, her own tendency to asthma being slight.

2. In many persons of average resisting power one nervous district is more vulnerable, more impressionable, especially by one kind of irritation, than the rest. Thus some persons are brought very nigh to syncope, or actually faint, from mere scratching the skin in vaccination; some are similarly affected by having a catheter passed; some are rendered faint by the sight of blood; some by a peculiar smell, even that of roses, as is related of Anne of Austria; some get asthma from the smell of a cat; some have rigors, and herpes, and fever from catheterisation of the urethra. Some persons are rendered delirious by salicylic acid; some by belladonna plaster; some by the rheumatic or choreal condition; most by an excessive dose of wine, which, however, in certain individuals paralyses the cord and not the brain. Some persons—and they are not weak-minded either—are highly emotional, especially to particular ideas, and have enough to do to keep this infirmity from betraying itself on unsuitable occasions. This is one of the difficulties of medical problems, that the same cause so often gives rise to different effects, sometimes quite unusual and unexpected. In our patient the temperature centre must have been singularly sensitive.

3. Another important point exemplified in our case is that the exciting cause of the disorder of a nervous centre is often latent, at least as regards local effects. A tooth which causes a remote neuralgia may not be an aching or tender one. An intestinal parasite which causes convulsive seizures may produce no local pain. The scybala in the rectum in our patient gave rise to no irritation of the mucous surface, but (at first) to pain apparently ovarian.

4. The importance of close examination of a patient in disorders of doubtful nature.—Had I contented myself with *one* vaginal examination, which might very probably have been the case if I had been dealing with a highly sensitive upper-crust person, I should certainly have supposed that the first castor-oil enema had removed all offending matters from the bowels, and should have looked for no further help in this direction.

5. The value of special clinical experience.—Though I was aware of the existence of the cause, I did not attribute to it the importance it deserved, having never heard of an instance where notable fever had been produced by scybala in the rectum. Yet I had quoted in my Lumleian Lectures in 1865 Anstie's case of unilateral vasomotor paralysis with epileptoid seizures from loaded bowels, and had been familiar with the conception of inhibitory paralysis for perhaps twenty years. The cases, however, of prolonged constipation I had known and heard of—in one lasting six weeks, and in some others from seven to twenty-one days, without any febrile disturbance—weighed, I suppose, more with me than any counter-experience I possessed. Had not my directions been carried into effect with more thoroughness by our excellent ward sister, Miss Enderby, than my half-faith in their necessity merited, we might have missed the recovery of our patient and the valuable instruction her case affords.

6. The *rationale* of the case which I present to you requires the assumption—which to me appears most fully justified—that there exists in some part of the cerebro-spinal axis, probably in the vicinity of the pons Varolii, a nervous centre which has the power of controlling temperature, just as the vagi nerves have the power of controlling the rate of the heart's action; and that paralysis of this centre by direct injury, toxæmia, or remote irritation, causes pyrexia. If you care to look into this matter, you will find a good deal of evidence in favour of this view in a paper by me published in the *Medical Times and Gazette*, vol. i., 1877, and a full account of the most recent researches on the subject of Fever is contained in a paper by Dr. Sanderson in the *Practitioner* for April, 1876. The temperature centre in our case was paralysed by the irritation transmitted upwards from the rectum, but this was by no means the only one affected. At the same time the vagal filaments which control the heart suffered paresis, and the rate of the heart's action became very rapid. The flushing of the face betokens paralysis of the nasal nerves of this part, and the delirium a similar paralysis of the intellectual centres. *All* these phenomena disappeared on the removal of the presumed exciting cause, which affords strong ground for the view that they were all produced by it. The probability of this is still further enhanced by the patient having a highly neurotic diathesis, such as would materially favour the supervention of unusual nerve disorder. Even in far more stable systems than hers it is by no means rare that rectal repletion causes more or less cerebral paresis, a state in which mental exertion is materially impeded, and which ceases as soon as the bowel is exonerated. Between such a case as the one I have related and urethral fever there is evidently a considerable resemblance. In both instances a mucous surface suffers offence from abnormal contact, and the resentful nerves of the part transfer, as it were, their own morbid state to a remote nervous centre. It is worth notice that the first effect of the rectal irritation was pain in the left ovarian region; this was, no doubt, a remote effect of the rectal disorder, just as the larger phenomena which shortly supervened and masked it. Like these it ceased *causâ remotâ*.

7. The stupor or semi-coma which occurred soon after her admission into the hospital was, no doubt, an indication of direct failure of nerve force, due partly to lactation, partly to catarrhal depression. Here no irritation was discovered or removed, and the causation was therefore essentially different from that of the later seizure with delirium and fever. Again, the epileptoid seizures, like the coma, seem to have had no definite exciting cause, unless it were the exhaustion produced by the recent nerve-storm. They exemplify, therefore, together with the coma, the often-observed association of spasm and paralysis, or, in other terms, of excessive and defective excitability.

8. The chest symptoms were at times disquieting; the upper parts of the lungs were more than once the seat of physical signs, which might well have indicated phthisis, had they been limited to these regions, and had they been permanent. A neurotic diathesis may well undergo change to a tuberculous, especially when a brother has died phthisical, the patient herself has spit blood and had winter cough, and a pregnancy has recently terminated.

Clinical Lectures
ON
SUPPURATIVE PERIOSTITIS AND EPIPHYSITIS.

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LECTURE I.

GENTLEMEN,—Suppurative periostitis is described by the majority of English surgeons as being an affection of early life; but the question is, why acute inflammation of the periosteum should be a more common and serious disease among children than it is in adults.

In the first place, I wish to direct your attention to the following history illustrating the symptoms and course usually run by acute inflammation leading to suppuration of the periosteum in an adult non-syphilitic patient.

E. G——, aged twenty-four, was admitted into the hospital on the 14th of December. She was a strong, healthy girl, and had enjoyed excellent health. There was no evidence of syphilis, either hereditary or acquired, in her case. The patient's family history was good. She had never suffered from rheumatism, and attributes the affection of the leg from which she now complains to a blow she received on her left shin some six days before coming into hospital. Subsequent to the accident, an extremely painful swelling formed over the upper and inner surface of her left tibia. The pain became so violent at night that she could not sleep, and being unable to perform her duties as housemaid, she was sent into hospital. On admission, a circumscribed, tense, oval swelling was found in the situation above mentioned; it was three inches long, and an inch and a half wide at its broadest part; the skin over the swelling was red and inflamed; the patient was feverish, and decribed the pain in her leg as being very great. The day after admission I passed a grooved needlein to the abscess; the point of the instrument impinged on bare bone, and it was evident that the base of the inflamed structure was formed by a portion of denuded tibia. Blood and pus escaped along the groove of the needle, and in this way I pressed out the fluid contents of the swelling, and then removed the needle, placed a firm compress over the part, and fixed the patient's leg to a back splint. She soon recovered, and left the hospital cured. The symptoms caused by the form of periostitis we are considering are great local pain, especially at night, a rise of temperature over the part, general feverishness, and sometimes rigors. The pain is much increased on pressure being applied, and usually by the heat of the bed-clothes; a circumscribed swelling appears, with its base formed by denuded bone; suppuration speedily occurs, and if the disease is allowed to run its course the matter bursts through the skin, and in some cases superficial necrosis or caries of that portion of the bone which has been stripped of its periosteum follows. On the other hand, if the disease be carefully treated from the first, and belladonna freely applied over the inflamed area, the limb being kept at rest, it is probable the parts will soon resume their healthy functions.

If in doubt in a case of this kind as to whether suppuration has occurred or not, do not hesitate to run a grooved needle into the swollen tissues; the escape of serum from the part along the instrument, even if no matter has formed, will relieve tension and so assist in subduing abnormal action going on in the inflamed periosteum.

I have never seen a case of periostitis in a non-syphilitic adult lead to pyæmia, or to more serious results than those I have mentioned, although the attack, as in this case, was acute, terminating in suppuration within seven days of its commencement. I shall revert to the subject of nodes when lecturing on syphilitic diseases of bone; but periostitis occurring in connexion with syphilis has a tendency either to disappear or to lead to permanent periosteal thickening. Nodes occasionally suppurate, and are then followed by ulceration of the soft structures and caries of bone, so that, whatever the origin or course run by periostitis in an adult, its effects are local, and, except by means of the chronic destruction of bone which they are apt to induce, the disease is of little consequence; but the periostitis of early life not only frequently leads to the rapid death of one or more of the long bones, but too often terminates in fatal septicæmia or pyæmia. I cannot help thinking the explanation of these phenomena depends on the difference that exists between the anatomy of a growing and that of a fully developed bone, and that the majority of cases of "suppurative periostitis" occurring before the adult period of life are instances of disease which has commenced in the structures situated between the diaphysis and epiphysis of the bone. We cannot always demonstrate this fact, because, fortunately, not a few of our patients get well, and so fail to allow us to complete our pathological studies as to the nature of the disease from which they suffered, but the following is a good example of the class of cases commonly described as acute suppurative periostitis of early life.

W. C——, aged six years, was admitted into the hospital on the 21st December. He stated that he was struck with a cane across the upper part of his right leg. The limb subsequently became swollen and painful. The patient was a pale, sickly-looking little fellow. On admission, we found his right leg was intensely inflamed and of brawny hardness. On the 23rd, a deep incision being made down to the bone, a considerable quantity of pus escaped from the wound. On the 27th another cut was made along the lower part of the fibula so as to give exit to matter. Bare bone was distinctly felt, the cavity of the abscess extending upwards to the head of the fibula. As the discharge became very profuse and the child's health was rapidly failing, I cut down on the bone and removed the whole of its shaft, leaving the upper and lower epiphyses and so much of the periosteum of the shaft as had not been destroyed by inflammation. In this instance, inflammation of the periosteum followed an injury, and at first sight the case looked like one of abscess originating among the muscles of the calf of the leg; but on passing a grooved needle into the muscle no pus could be discovered, and we had to cut upon the bone before the matter flowed into the wound. Free incisions were therefore made into the periosteum; subsequently I had to remove the shaft of the bone, leaving, however, the upper and lower epiphyses; and I expected that the greater part of the bone would re-form from these epiphyses and the remains of the periosteum of the shaft. And such has been the case: you can now distinctly trace the outlines of a new fibula under the cicatrix in the skin; in fact, the shaft of the bone has been partially re-formed.

If you examine the portion of bone I removed from W. C——'s leg, you may notice the difference presented by it as compared with the tibia affected by acute osteo-myelitis I referred to in a former lecture. The fibula is denuded of periosteum; the lacunæ in the external layers of the bone are large, irregular, and broken down; in fact, the protoplasm they contained having ceased to live in consequence of the inflammation of the periosteum before I removed the fibula, the outer layers of the bone became necrosed, but the contents of its medullary canal and the soft tissues in the interior of the fibula continued to live, and with them the larger part of the shaft of the bone. On the other hand, the medulla contained in the cancellated tissues and interior of this tibia having been destroyed by acute inflammation, the greater part of the bone has perished, its outer layers depending on the periosteum being alone preserved, and in places it is covered in by new bone formed from the periosteum. The explanation of these pathological changes is very simple. The outer laminæ of the long bones grow from and receive their blood-supply through the periosteum; this covering of the bone having been destroyed by inflammation during life, the layers of osseous tissue depending upon it also died; in the same way, and for similar reasons, the larger part of the internal structure of the tibia has perished in consequence of the acute osteo-myelitis by which it was attacked.

In the case of W. C——we cannot determine in what part of the periosteum the disease commenced, for the patient recovered; but it is certain, although the shaft of the fibula was denuded of its periosteum and its outer layers were necrosed, that the upper and lower epiphyses of the bone lived, and grew rapidly subsequent to the removal of the shaft. If

you contrast the features of this case with that of the first one I related to you, you cannot fail to observe the difference between the symptoms presented by a case of suppurative periostitis occurring in an adult and in childhood. In this boy, and in all similar instances of disease I have seen among young persons, high fever and alarming symptoms of septicæmia have been the leading characters presented by the patient, combined with the formation of matter along the shaft of the bone, and subsequently into the surrounding soft parts, the symptoms of blood-poisoning coming on during the early stages of the disease, and often before the external air has gained access to the inflamed tissues.

When speaking of the development of bone, I mentioned the fact that the line of junction between the diaphysis and epiphysis in the young subject was not only freely supplied with blood, but that at this line active changes were going on in the neighbouring cartilage cells, and, as I further explained, the deeper layers of the periosteum have an intimate connexion with the epiphysis. That abnormal changes occurring in such a situation are likely to assume an acute character seems very probable, and if inflammation were established at this line, it is equally clear, from the anatomical arrangement above referred to, it would be likely to spread to the periosteum which contains numerous cells derived from those of the epiphysis continued along the shaft of the bone. Should this be the true pathology of these cases, it seems clear that they can only occur among children, or, at any rate, before the diaphysis and epiphysis become continuous with one another. The question is how far facts support this theory.

S. S——, aged three weeks, was admitted into Queen Anne's ward on June 10th. The child's mother was a strong healthy woman, and had two other children, both living; but the patient, who had been exclusively fed from the mother's breast, appeared to be a well-nourished infant, with no marks of syphilis or any other specific disease about her. Five days before bringing the child to the hospital, Mrs. S—— observed that her infant's left knee had become much inflamed. She could assign no cause for this state of things. The swelling of the limb increased rapidly, and within four days matter formed and burst externally at the inner and lower end of the thigh. On admission the left knee and the parts above and below it were intensely inflamed; pus was discharging from the wound close to the knee, and a probe inserted through this opening could be passed into a cavity extending across the lower part of the femur, in which bare bone was felt, and, as I have before remarked, the case was supposed to be one of acute arthritis of the left knee-joint, and entered as such on the patient's admission ticket. A counter opening was made along the outer side of the limb, so that free drainage was established. Cold applications were applied, and the limb kept at rest on a splint. On the following day I found the little patient evidently sinking rapidly, and she died within thirty-six hours of my visit to the hospital. There was no evidence of suppuration in connexion with any other epiphysis of the body. On a post-mortem examination we found that there was no disease of the left knee-joint; the ligaments and other structures entering into the formation of this articulation were healthy. The lower epiphysis of the left femur was separted from the shaft of the bone by a cavity filled with pus. The outer surface of the lower extremity of bone was denuded of periosteum; the medullary structure of the diaphysis was intensely inflamed; the lower end of the bone, in fact, affording us a well-marked illustration of the effects produced on the osseous structures by acute osteo-myelitis.

If we consider the condition of the tissues I have described as a whole, we can hardly doubt that from some unknown cause suppurative inflammation had been established in the medullary structures at the line of ossification between the diaphysis and the epiphysis of the femur, and that the intensely inflamed condition of the lower part of this infant's thigh had commenced in the disease between the diaphysis and epiphysis of the lower end of the femur. The condition of the limb, and the fact stated by our house-surgeon that a probe inserted through the opening in the skin in its course touched bare bone both above and below the instrument, enabled me, when first I saw the child, to point out to the class the nature of the disease, and to explain the reason of the dangerous condition the patient was in, being, as she then was, well-nigh in a state of collapse from the effects of septicæmia. Evidently, if the disease had commenced in the knee and run on to suppuration, a probe passed through the joint would not have impinged throughout its course on bare bone, the articulation being constituted of the soft cartilaginous epiphysis of the femur and tibia, in the case of so young an infant as this.

The following is another instance of the same kind, and you will observe from the notes that this patient was taken into the hospital as a case of "acute rheumatism." Symptoms of pyæmia were speedily established in a marked degree, accompanied by local inflammation and suppuration within various synovial membranes, before the external air could possibly have gained access to the original focus of disease. This was, in fact, an instance of death from pyæmia.

M. A. D——, aged ten years, admitted into the hospital on the 25th of January. The following notes of her case were kindly kept for me by my dresser, Mr. W. Legge. The child's mother states that ten days ago the patient came home from school saying she had fallen down and hurt her left foot. She limped from this time, but until the 22nd of January was able to move about. She was then, while seated in her chair, suddenly seized with a violent fit of shivering. She was put to bed. The shivering lasted for an hour or so, and recurred again in the evening. During the night the child became delirious. On the 23rd she was taken to the surgical out-patient department and ordered into the hospital. She was admitted into the medical wards on the 25th as a case of acute rheumatism. On the following day I was requested to see the child in consequence of the inflamed state of her left ankle-joint. I found the patient huddled up in bed with her knees and thighs flexed; she had the piercing scream of a person suffering from meningitis; her pupils were contracted, her features drawn, almost convulsed, and she could not bear the light. The slightest effort to move any of her limbs greatly increased her agony. There were numerous small hæmorrhagic vesicles over the skin. Her temperature varied from 105° to 103°. Her lungs were seriously implicated. On examining the left ankle, I found a swollen condition of the soft structure over the outer malleolus, extending upwards some two inches along the shaft of the bone. On passing a grooved needle into the part, pus exuded along the instrument, and I therefore made a free incision down to the bone, which was bare of periosteum, and the epiphysis quite loose and separated from the diaphysis. The patient's constant piercing cry was so distressing that she was removed to a special ward. In spite of careful nursing and treatment she speedily sank.

On making a post-mortem examination, Mr. Neale found the left fibula denuded of periosteum for some two inches from its inferior extremity, except on its posterior surface, which was still covered with periosteum; the lower epiphysis was separated from the shaft of the bone, and on section its cancellated tissue was found to be full of matter. On opening the right and left hip-joints, the left shoulder, right sterno-clavicular, and the metacarpo-phalangeal joint of the left little finger, the synovial membranes were found distended with pus; the other joints were not opened. On examining the brain, it was hard to say in what respect it differed in appearance over its upper surface from that of a child who had died from meningitis; the deep injection of the membranes and extravasations into the cortical substance of the brain were very marked. In the lungs numerous foci of suppuration were observed, and similar infarctions were found in the lining membrane of the right side of the heart.

In this case, from the symptoms during life and the post-mortem appearances observed, we have clear evidence of septic poisoning, and as I before remarked, these symptoms came on before air had gained access to the seat of primary disease, which, it appears to me, we may fairly assume was an injury to the lower extremity of the left fibula, followed by inflammation of the medulla and periosteum, suppuration, and the absorption of matter into the circulating fluid. It is impossible to determine if the lower epiphysis of the fibula had at the time of the accident been broken from the diaphysis, but there can be no question as to suppuration having occurred in this locality, and of the existence of acute osteo-myelitis and periostitis in the end of the bone. All that followed was, I think, consequent on this local inflammation, and the history of this case gives us a clue to the reason why suppurative periostitis in early life is so fatal a disease. The truth seems to me, as I have before stated, that the tissues at the extremity of the diaphysis are in these cases generally primarily inflamed; the medulla in the cancellated tissue of the bone becomes speedily implicated,

and this, I suppose, is the main channel through which septic poison enters the circulation, though it may be the absorption of rotten albuminoid matter occurs also from the vessels external to the bone and the inflamed periosteum.

CASES OF PHTHISIS TREATED AT HIGH ALTITUDES.

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(Concluded from p. 198.)

I HAVE notes of two other patients who passed last winter at Davos; but, as their cases resemble those already cited, I will only mention them briefly.

The first (Case 4) was a lady, aged twenty-five, of a consumptive family, with well-marked consolidation of the right upper lobe, and a cavity at the apex. She spent nearly six months at Davos, with gain in weight and strength, but with some slight hæmoptysis, and on descending to Coire had a slight recurrence of the hæmorrhage; then passed five weeks at Baden-Baden with great benefit, and found that she could walk up-hill without difficulty. On examining her in June, 1879, I found, on the right side, marked diminution and almost absence of the former dulness, cavernous sounds audible over a smaller space, shrinking of the chest-wall in that region, and, curiously, an increase in the circumference of the region below, showing clearly that the contraction of the apex of the lung had been followed by the development of emphysema of the middle and lower lobes and a drawing upwards of these, thus accounting for the change in the percussion-note.

The other patient (Case 5) was a gentleman, aged eighteen, with a well-marked cavity in left apex and extensive fibrosis of the whole lung, whom I saw in October, 1878, and whose pulse and respiration showed clearly that a large amount of lung surface had been invaded, though the disease did not show signs of advancing. I visited him at Davos, and found him with rather shorter breath, and still with quick pulse, the physical signs remaining the same. I heard that he grew worse afterwards, and was very ill at Baden-Baden, and died in England in May, 1879; but I have not the particulars of the latter part of his illness. It would, however, appear to have been an instance somewhat resembling Case 3, where the lungs were too largely implicated to profit by the climate.

The following two cases show the results both of the South African uplands and of Davos:—

CASE 6.—Mr. J. N——, aged twenty-eight, was sent to me on March 3rd, 1877, by Mr. A. Hallam, of Sheffield, with the following history. He had enjoyed good health till September, 1875, when, during a tour in the Dolomites, he was attacked by typhoid fever, on which broncho-pneumonia supervened. From these he slowly recovered, but the cough remained; and in October, 1876, he had pleuro-pneumonia, which confined him to his bed for four or five months. Since then he has gradually improved, but his cough is troublesome, expectoration being yellow. He has lost some flesh. Temperature (morning) 96·5° F.; pulse 84. There was diminished movement over the whole *left* side, with loud bronchophony and harsh breathing, crepitation above scapula, and dulness and loud cavernous sounds below the angle of scapula; on the *right* side crepitation audible in the first intercostal space. The treatment recommended was cod-liver oil, with dilute phosphoric acid and strychnia; counter-irritation with iodine liniment, and to spend two months at Bournemouth.—May 10th: Has passed two months at Bournemouth under Dr. Snow, and gained two pounds in weight and some strength; cough easier, but has lately had sore-throat, caused by the prevalent east winds; breath less short; expectoration scant and frothy; the sounds were dryer throughout both lungs.—August 29th, 1877: Has spent eight weeks at Davos, as ordered, with great benefit; lost 3 lb. during the journey there, but afterwards regained it, and 4 lb. more, present weight being 8 st. 12½ lb. Breathing freer on exertion; has walked eight miles a day without difficulty; some shrinking of the left chest is noticeable, the measurements being at level of the nipple—right 15¼ in., left 14½ in. The heart is drawn up, the impulse being perceptible between the fourth and fifth ribs. No cavernous sounds can be detected in the left lung, and no crepitation anywhere. Oil has been regularly taken.—Oct. 4th: At Sheffield, but not so well; some crepitation can be detected in the left back.—Aug. 6th, 1878: Left England for the Cape in October, and on the voyage out lost 4 lb. in weight. On arrival spent one month at Wynberg, drinking three or four glasses of milk daily, and increasing 9 lb. in weight; then he proceeded to Pieter Menzies' Fontein, in the Karoo desert, 3000 feet above sea-level, where he spent several weeks. Here the atmosphere was so dry that for some time the hygrometer showed a difference of 24° F. between the bulbs; but later on rain fell heavily, the difference between the bulbs diminishing to 1° F., and, immediately, he had hæmoptysis to the amount of two ounces: Dr. Drew, of Beaufort, attributing this to the rapid change in the climate. On recovering he proceeded in a waggon to Bloemfontein, where he spent several months in excellent health. During the months of May and June he "trekked" in an ox-waggon through the Transvaal, living an entirely open-air life, sleeping generally in the waggon, and often providing food by his own gun. No medicine taken, except during the attack of hæmoptysis, since October. He has gained about 5 lb., and looks well. Measurements are the same as in August, 1877, but there is now some curvature of the spine towards the right, the left shoulder being lowered. No cavernous sounds are audible, breathing is weak over the whole left side, and there is some dry crackle to be heard; heart's impulse still between fourth and fifth ribs.—Jan. 1879: Has been working steadily at business since his return, but, in consequence of a cold, got frightened, and is now off to Davos to recover.—May 8th: Remained at Davos from December to the end of March, but had constant attacks of bronchial catarrh, and felt the cold greatly. Though the weather was bad, he managed to get out two days in every three, and to ascend the Schütz Alp frequently. At the end of March he went down to Rome and Naples, returning to London in May. As he journeyed south his cough lessened, but he suffered much at Naples from indigestion, and lost weight. Aspect ruddy and sunburnt; weight 9 st. 2½ lb. Chest measurements at level of nipple: right side 16½ in., left 14½ in.; at level of second rib, right 16¾ in., left 14½ in. On the right side there was clear percussion, and excellent breath-sound everywhere. On the left some dulness, and fine crepitus over lower third posteriorly. Loud tubular sound over a small area below the angle of the scapula.—May 27th: After freely blistering, the cough has subsided, and the crepitus nearly disappeared. The tubular sounds still remain.

Here we have a most interesting climatic experiment, for on this patient were tried Bournemouth, sea voyages, European high altitude station (Davos, 5200 feet) in summer and winter, and a prolonged sojourn in the uplands of South Africa, at levels varying from 3000 feet to 4700 feet above the sea. Of these, Bournemouth did some good, the voyages none at all. The contraction of the cavity took place during the two summer months at Davos, an improvement which was confirmed and advanced at Bloemfontein and in that region; but a second visit to Davos, in winter this time, gave no relief to the catarrhal symptoms, and did not prevent his suffering much from the cold and dyspepsia. During this last visit some fresh consolidation took place at the base of the left lung. The remarkable fact to be noted is that the measurements show that during the second winter at Davos the right chest increased one inch in circumference, the left remaining the same, the result probably of the frequent ascents of the Schütz Alp and the catarrhal accumulations in the other lung. It is a good instance of the class of patients who require *warmth* as well as altitude, for Mr. N—— improved at Bloemfontein and at Davos during the summer, but retrograded during the winter at the latter place.

CASE 7.—Lucy B——, aged thirty, was admitted into the Brompton Consumption Hospital, Jan. 11th, 1878. Her father, sister, brother, and two aunts had died of phthisis. Five years ago she had hæmoptysis to the amount of a pint and a half, attributed to the exertion of running upstairs, followed by inflammation of the lungs, from which she recovered, but with a cough which has continued ever since, and she has lost flesh considerably. Returned to her work, and three years later had hæmoptysis up to four ounces, repeated on several occasions to a lesser extent. Has had night sweats for

the last year and a half. On admission, cough moderate; expectoration, formerly copious, now slight; appetite bad; catemenia absent for nine months; weight, 7st. 13½lb. There was dulness with tubular sounds and bronchophony in the upper half of both lungs, front and back, most marked on the right side. She remained in the hospital two months, taking cod-liver oil in combination with various tonics, and applying preparations of iodine to her chest. The physical signs remained stationary; her appetite did not improve; and her weight on leaving was 7st. 11lb., slightly less than on admission. Having an opportunity to go to South Africa to assist in the mission work (for which she had been training) at Bloemfontein, by my advice she started in March for that place.—May 15th, 1878: Improved much on the voyage out, except in the tropics, where hæmoptysis came on to the extent of three ounces, but she gained 1½ lb. before landing. Went up to Bloemfontein, and there regained appetite and lost cough (six months after leaving England). Remained there two years, and was able to work hard at teaching in the schools, and make herself useful in various ways, till June, 1877, when she was attacked with acute rheumatism and confined to bed for three weeks. She recovered, but with one hand crippled, and has come home to try Buxton waters for it. There was no difference of measurement between the two sides at the level of the third rib, each girth amounting to fifteen inches. Right: slight bronchophony over upper quarter anteriorly. Left: slight dulness in the first intercostal space and above the scapula.—March 13th, 1879: Went to Buxton and took baths, but with no relief till after she had quitted the place, when the rheumatism diminished, and she can now use her finger-joints fairly. Is nursing at present, and even *carrying*, a consumptive patient. Her weight is 8 st. 3¾ lb. The left side has contracted, and at the level of third rib measures an inch and a half less than right, and gives the same physical signs as in 1878. On the right no signs can be detected. She is wonderfully well, and has no cough.

I have notes of other cases treated at Davos and elsewhere at high levels, but the above will serve as examples of the mountain climate influence on phthisis.

This influence may be described, in its general aspect, as intensely stimulating. The appetite is increased, the digestion and assimilation are improved,[1] the respiration is quickened, and also the circulation. This last is a very decided feature. In all the cases I saw at Davos, the impulse of the heart was not only tangible, but distinctly visible, and many of the consumptive patients complained more of palpitation and throbbing and other cardiac symptoms than of cough and expectoration. Both Dr. Spengler and Dr. Ruedi hold that Davos is contra-indicated in cardiac cases; and Brehmer, one of the originators of mountain-air treatment of phthisis, bases it entirely on the fact of the heart in phthisis being small, and the stimulating influence of the mountains tending to its further development, and thus to improved circulation.

The effect on the lungs appears to be chiefly the result of the inspiration of rarefied air, combined with the exercise taken. The chest measurements in Cases 1, 2, 4, and 6 show a very decided enlargement after residence at high altitudes. Sometimes it is the affected side, sometimes the opposite one, which undergoes enlargement, due either to hypertrophy of the lung or to emphysema. Dr. Walshe has noticed a similar widening of the chest in a patient of his who spent several years at Santa Fe de Bogotá, at an elevation of 9000 feet. The principal change in the physical signs noted in nearly all the cases was rapid and remarkable diminution of dulness, even in old-standing consolidations. This may result either from absorption of the consolidation or by hypertrophy and drawing over of the adjacent lung tissue, or again from localised emphysema; but of the fact of diminished dulness I have no doubt. The decrease in frequency of hæmoptysis will, I believe, be demonstrated by important statistics about to be published by Dr. Spengler, and it has been insisted on by Dr. Hermann Weber and others. I may mention that Davos and other mountain resorts are said to be contra-indicated in cases of cerebral irritation.

Now what cases of phthisis are suitable for this treatment? It is difficult to select these accurately. I should, however, say that the great points to bear in mind are—first, that the disease should be *limited*, and that no *large amount* of lung-surface should be involved; secondly, that no pyrexia, or tendency to pyrexia, should be present. During my visit to Davos last Christmas I was surprised at the large proportion of pyrexia among the phthisical patients, which, considering the limited amount of disease (and that in an incipient form) which prevailed, is unusual, and different from the common experience in England. It seems to me that the same influence which so powerfully stimulates the digestion, and causes the maximum of carbonic acid to be thrown off earlier than in the plains, exercises a corresponding influence on the inflammatory process, and converts what in England would be a passive congestion, with low temperature, into a well-marked pyrexial inflammation. Such is the stimulating influence of mountain air.

The patients who do best are instances of limited consolidation at one apex, or of limited cavity, or of hæmorrhagic phthisis. In most of these complete arrest takes place; and what is most valuable in the mountain influence is, that it hardens people and makes them bear cold better afterwards. The cases of phthisis where mountain treatment is contra-indicated are—all febrile patients, and those in whom the lungs are largely involved. These patients suffer terribly from the rarefaction of air, and also from the cold; and whereas at lower levels they appear merely as pale, weakly-nourished individuals, here they have blue extremities, livid countenances, never can keep warm, and present a picture of respiratory misery. I need hardly say that cases of laryngeal phthisis and of double cavities, cases with extensive fibrosis of the lung or with extensive pneumonic consolidations, all come under this category.

In conclusion, I would remark that some of the cases narrated show clearly that, as regards patients suitable for a high altitude resort, at least two classes exist—(1) those benefited by the combination of cold and high altitude, and (2) those benefited by warmth and high altitude; and these points should be borne well in mind in the selection of climate.

[1] Dr. Marcet (Proc. Roy. Soc., vol. xxviii., 1879, p. 504) shows "that the maximum amount of carbonic acid is expired rather earlier after a meal in the mountains than in the plains, which would show that there is apparently a tendency to a more rapid digestion and assimilation of food in the mountains than near the sea level."

FOUR EXCISIONS OF THE TONGUE, WITH PRELIMINARY TRACHEOTOMY IN THREE; REMARKS.

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IN recording these four cases, including all the excisions of the tongue which I have performed up to the present, I wish more particularly to describe a mode of operation not hitherto practised in this country as far as can be learned from published records. But in following one or two German operators more or less in the method employed, I believe I do so with, if not altogether different, at all events additional objects in view. The operation of tracheotomy, as a preliminary to excision of the tongue or upper jaw, has been done several times in Germany with the design of preparing for possible severe hæmorrhage during the removal of the diseased mass and consequent choking of the patient with his own blood—no unreal danger, as two cases within my own knowledge prove, with others published elsewhere (Langenbeck's *Archiv*, Bd. xii., p. 122), in which death was so brought about.

But there is another danger not readily recognised which may be guarded against by this measure. Having seen a good many operations on the tongue and jaws, I have been struck, as others have been, with the large percentage of deaths soon after the operation from septic pneumonia, with, in several cases, gangrene and abscess of the lung. In subsequent post-mortem examinations I have had a good opportunity of observing the condition of things in the chest, and have been particularly surprised at the rapid and extensive changes produced in the lung tissue. Now, the favourite explanation of this fact—namely, that the patient after the operation had been exposed to some special draught of cold air, or that the weather had changed

for the worse just at that particular time—has always appeared to me a lame one. And I submit that there is no need for it, and that the real fact is, that the patient does not get enough of fresh air. All surgeons who have treated such cases of excision of the tongue and upper jaw are aware of the difficulty of overcoming the intolerable fetor produced by the decomposition about the roof of the organ. Now, if a patient be compelled to breathe incessantly the acrid fumes given off from a quantity of putrid material in the mouth day after day and night after night, it is not to be wondered at that the lungs should suffer. Irritated at first, they become, under a continuance of the supply of the poison, intensely inflamed, and rapidly run through the several stages of pneumonia into gangrene and abscess. It would be a remarkable fact indeed if it were not so in many instances, seeing that the fetid breath in such cases is capable of producing serious illness in the attendants at the patient's bedside. More than once I have known both nurses and house-surgeons at University College Hospital laid up with very bad, almost diphtheritic, sore;throats, which they have themselves attributed to close attendance on such "tongue cases" or "jaw cases," and have spoken of it as a recognised fact. Now if this foul breath is able to produce disease in others when inhaled, how much more powerful must its effects on the patient himself be, who respires it undiluted night and day.

In reference to this frequency of pneumonia in extensive operations on the tongue (a point which I ventured incidentally to bring under the notice of the Clinical Society of London some months ago), I have lately been engaged in collecting cases of excision of the organ, recorded in the home and foreign journals, with the object of ascertaining as nearly as possible what proportion die of lung complications. So far as collection is concerned, I have been forestalled to a certain extent by a German surgeon, Dr. Schläpfer, who, however, has somewhat lightened my task by tabulating fifty cases of amputation or extirpation of the tongue in a monograph which has only just reached this country (Ueber die Vollständige Extirpation der Tunge. Dr. U. Schläpfer). Of these, forty-one were performed by English or colonial surgeons, the remainder by continental. To these I could add about half as many again of newer cases, but it will answer my purpose better now to examine his table first alone as it stands, as having been compiled with different objects to my own it is therefore quite independent. My own collection of cases I shall append subsequently, if space permit, and, if not, hope to make them the subject of a later communication here or elsewhere.

Of the 50 cases alluded to, 11 died as a direct consequence of the operation—i.e., 22 per cent. They are recorded thus: septicæmia 1, intestinal catarrh 1 (probably a form of septicæmia), pneumonia 3, pneumonia or pyæmia 3, pyæmia 2, exhaustion 1. Now from this it appears that in 6 cases, or in 12 per cent., extensive lung disease was the cause of death, the form being rapid pneumonia. But it may be fairly argued that this total of 22 per cent. of deaths hardly represents the full mortality. Everyone knows that successful cases find their way into print more readily than unsuccessful, from one cause or another; but, nevertheless, the percentage of deaths from extensive lung disease, though probably lower than it ought to be, is still a very startling one, for which it seems well worth while to look for an explanation. As the object of these preliminary remarks, however, is only to show briefly the grounds on which I employed the novel treatment recorded in the last three of the following cases, I will not enter further upon the question here than to state my belief, subject to correction, that it will be found in the inhalation (inevitable in the older methods of operation) of the putrid emanations from the wounds. This opinion I venture to hope I shall be able in a later communication to support by far stronger if not conclusive evidence from the careful analysis of a much larger series of cases. I will only here briefly add to the statistics just given from Dr. Schläpfer's table, the following facts, bearing, as far as they go, even more strongly on the case. From a very careful examination of the Registrar's reports of University College Hospital now before me, I find that during the years 1871 to 1877 inclusive, 36 patients are reported to have been admitted for epithelioma of the tongue. Of these only 21 underwent operation, the others being regarded as too far advanced for interference. Out of these 21 cases only 13 are reported as having recovered from the operation, 8 having died. Of the latter, 5 are given as succumbing to lung affections as follows: 2 pneumonia with abscesses, 1 pleurisy and bronchitis, 1 pneumonia with grey hepatisation, 1 pneumonia, 1 septicæmia with healthy lungs, 1 septicæmia (condition of lungs not noted), 1 from œdema of the glottis. These figures, then, show (as far as figures go) an even higher percentage of deaths from lung affections than the table quoted above—in fact, 23·8 per cent. The reason of its being nearly double of that of the last table is probably to be found in the experience alluded to before, that statistics for mortality compiled from cases recorded in the journals are likely to be inaccurate more or less, owing to successful cases being more willingly published than unsuccessful. At the same time, I believe that at other London hospitals the death-rate has not been so high in similar cases.

We learn further from both sets of figures that, excluding hæmorrhage, and next to lung affections, septicæmia and pyæmia carry off most patients, and that, besides these causes, we have only to fear exhaustion and œdema glottidis (one case each out of the total of nineteen deaths of the combined tables). It is possible, of course, to interpret the figures in a different way, namely—that all the lung affections were but a manifestation of pyæmia or septicæmia, but this does not alter the case in the least so far as grounds for the method of operation now to be described are concerned. As to the latter, the procedure was based upon the following conclusions, drawn from the consideration of such cases of those above-mentioned with fatal issue—(1) that it is desirable to guard against hæmorrhage into the larynx and lungs; (2) that it is desirable to eliminate the great necessity of lung, as where there is bleeding, or where chloroform is not given; (3) it is most important that the patient should not be permitted to breathe over the surface of the usually foul wound, but be provided otherwise with pure air; (4) that very free and constant drainage of the floor of the mouth be provided for until all putridity has passed away from the wound and the patient is able to use the muscles of his mouth well, so that not only all secretions from the wound may be carried off, but also remains of food, which may also become putrid in the mouth, and from it find their way into stomach or larynx; (5) that these requirements are met to a considerable extent by preliminary tracheotomy and patency of the tracheal wound for a considerable period afterwards, and also by the mode of drainage with a silver tube in the floor of the mouth, which is detailed below.

CASE 1.—J. S——, aged fifty-eight, had noticed a small ulcer on under surface of tongue about eighteen months before admission to University College Hospital; as it became larger it was cauterised seven months later. On admission it was much indurated around its edges, and the tongue was bound down and could not be protruded, although apparently sound in the greater part of its substance. Noticed hardening of a small gland over right half of hyoid bone for about six months previously. Patient was very healthy; had never suffered from lung troubles. The diagnosis being epithelioma, involving the under surface of tongue, I determined to excise wide of it all round.

On Sept. 6th, 1876, I divided the lip and soft parts in mid-line nearly to hyoid bone, then having drilled the lower jaw on either side of symphysis, divided latter with Hey's saw, first removing the incisor teeth. Drawing aside its halves, the floor of the mouth was now comfortably reached, and the mucous membrane divided close to jaw all round. I then dissected with knife-handle between the mylo-hyoid and hyo-glossus muscles down to root of tongue on either side, the genio-hyoid muscles remaining intact—in fact, Syme's second improved method. The whole tongue was now freed, and being held forward by a cord previously passed through the tip, was removed for the greater part by two loops, applied one after the other, the first by transverse transfixion cutting downwards, the other from first line cutting upwards and a little forwards. About the anterior two-thirds of the organ were thus removed. Slight bleeding followed, but was checked by ligature of one vessel and torsion of another. The jaws were now wired in usual way; the lips, &c., united by hare-lip pins, figure-of-eight sutures, and collodion; lower angle of wound left open for wire ligatures and drainage. Next day the patient felt very well, and wished to get up; temperature 99·8°. The day after he was doing well in every respect; temperature 100°. Also on the 10th, 11th, and 12th. On the 13th it was stated that he had had bleeding since the night before to the extent of three or four ounces; this was arrested by ice and solution

of ergot in his food. General bronchitis was now found (which had commenced a day or two before), and increased with extreme rapidity, the patient becoming more and more cyanosed, and dying on the 15th.

Necropsy.—Lungs intensely emphysematous; great congestion of lower lobes; intense bronchitis, bronchi being filled with dirty-coloured, fetid pus.

(To be concluded.)

ON SOME OF THE MANIFESTATIONS OF SYPHILIS.

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SYPHILIS is a disease which presents itself to the medical practitioner in so many different forms that one is apt to overlook the possibility of the venereal virus being the original cause of the complaint. One patient suffers from hemiplegia; another has excruciating headache, followed by paralysis; another gradually loses his sight,—these symptoms arising from the presence of gummata, periosteal disease, or the arterial or nervous changes met with in syphilis, and uninfluenced by treatment adopted for such symptoms when arising from other causes, but, on the contrary, very much influenced by the proper administration of mercury or iodide of potassium, which we can only feel justified in administering to any extent when we feel sure that we have made a correct diagnosis. In other diseases there is a certain amount of regularity about the symptoms which is not to be met with in syphilis, and this certainly aids us in arriving at a correct conclusion. For instance, the left hemiplegia, arising from the presence of a clot, gives rise to a certain set of symptoms generally met with when it occurs from local pressure; whereas in syphilis it may be accompanied by aphasia, or perhaps ptosis, on either side, owing to the mischief not being so localised in the latter instance.

The following are examples of such cases, where great difficulty was metwith in obtaining a proper history, and where decided improvement followed the administration of mercury.

The first case is that of a married woman, aged thirty-eight, who, when I first saw her, was suffering from aphasia; her memory was impaired, her mental faculties generally had deteriorated, she was rapidly losing flesh, and her appetite was poor. She had been married twice, but had never borne any children, nor had she at any time miscarried. Soon after her marriage with her first husband she had suffered from ulceration of the throat, nodes on the shins, and inflammation of one eye; but the pupils acted well now, and no evidences of former disease of the eye were apparent. She had been treated at the time for syphilis, but had not persevered with the treatment, she thought, long enough to ensure a cure. For the last sixteen years she had been an ailing woman, and had had eruptions of the skin, with occasional attacks of sore-throat. Six months ago she noticed that she could not speak as well as usual, and this inability had increased daily up to the present time. I prescribed the perchloride of mercury with sarsaparilla and bark. These remedies she continued to take for three months. She gradually improved, and at last could talk almost as well as ever; her memory improved, and her mental powers were as vigorous as they had ever been.

Finding that she had so far recovered, she gave up treatment entirely. In about two months afterwards she was brought to me by her husband. I found that she could hardly speak, her memory seemed to be all but gone, she was quite insane, and had an impression that all her friends were in league against her; she had frequently attempted to injure those about her, and had at last to be removed to the lunatic asylum. I have never seen or heard of her since.

The second case is that of a man, aged thirty-seven, who complained of attacks of excruciating pain, which extended from the eyes to the occiput, and which invariably was worse at night, prevented him from sleeping, and, he said, nearly drove him mad. He had frequently suffered from attacks of this kind during the last eight years, but never from such a one as the present, which had lasted nearly three weeks, and the pain now seemed to increase day by day. On inquiry I found that he had suffered from syphilis seventeen years ago. He had had skin eruption, severe sore-throat, and some chronic disease of his left testicle. He had married four years ago, but his wife had never borne any children, nor had she miscarried. I prescribed the iodide of potassium, which acted like a charm, and under its influence the headache passed away, his appetite improved, and he rapidly regained flesh and strength. Then I ordered him to take the perchloride of mercury for some weeks. He took it until his gums were slightly touched. I watched the case for eighteen months, during which time no return of the pain occurred.

About five years ago I attended a married lady who had an immense ulcer of the left palate on the left side; it had worked its way to the nasal cavity, and presented the appearances generally considered as characteristic of epithelioma. The parotid gland on the left side was enlarged and tender. She had been complaining more or less of this sore-throat for six months and had been ailing the whole of that time; her nights had been sleepless, owing to severe pain and other uncomfortable sensations in her throat; she had got weaker and thinner day by day, and now she could hardly walk; her skin was sallow and ill-nourished; her face looked very careworn and haggard. The appearance of the ulcer, the great deterioration in health which had taken place within the last six months, together with the general cachetic appearance of the patient, seemed to favour the supposition that the ulcer was of a cancerous nature. However, I found that she had been married about eight years; conception had never occurred; she had suffered from a rash which had never been treated, and from slight sore-throats, which she had looked upon as evidences of cold; her left pupil was irregular and smaller than the right; and she complained of great pain in the right iliac region just before and during menstruation.

Taking all these symptoms into consideration, I came to the conclusion that the ulcer was of a syphilitic nature, and prescribed the 1-20th of a grain of the perchloride of mercury with decoction of bark three times a day. The ulcer gradually healed, the patient gained flesh, and in three months was, as far as I could judge, cured. I may state that the ulcer had been treated locally and general tonic treatment had been adopted internally, but with no good result.

A patient, about thirty years of age, some years ago applied to me in order that I might endeavour to ascertain the cause of her sterility. She had been married about seven years, had always menstruated regularly, but had suffered from more pain for two or three days previous to menstruation since she had got married than before; more especially was the pain felt in the right iliac region. The cervix and fundus uteri were in a normal state; the left ovary natural; the right large, hard, and tender to the touch. I ascertained that in a few months after her marriage she had been treated for rash and sore-throat, and her hair had almost entirely come off. She considered that she had quite recovered, but had never felt quite well. As a few patches of psorinsis, of a copper hue, were still visible on the body, (though, owing to their being covered by clothing, they had not received much attention), I placed the patient under the influence of mercury, hoping thereby to relieve the ovarian symptoms, which I had no doubt, in my own mind, were dependent upon syphilis. I gave her the one-twentieth of a grain of the perchloride three times a day, and kept her under my care for about three months, during the whole of which time she continued to take small doses of the remedy regularly, but never except once to such an extent as to touch the gums. The rash gradually disappeared, the ovarian enlargement and tenderness passed away, and the patient regained her strength. In about eighteen months afterwards she was delivered of an apparently healthy child. I may state that the husband had been treated and apparently cured by the family medical adviser, but the wife could not be prevailed upon to take medicine when she had been partly cured.

The first case was one of those lamentable instances we meet with occasionally, where a life is rendered miserable by the presence of disease which does not progress rapidly, but is the cause of general ill-health, until at last—why we often know not—sudden action is set up and rapid

advance is made, ending in this case in total disorganisation of the nervous centres.

The second patient had been a martyr for a long time, had been under treatment and sometimes relieved, but had never told any of his medical advisers that he had at any time suffered from syphilis.

With regard to the third case, this patient suffered from a large ulcer, which had all the appearances usually presented by epithelioma—the enlarged gland and incipient cachexia, which was very similar to the cachexia of cancer,—but on inquiry I found that symptoms of syphilis had evinced themselves, and prescribed mercury, hoping that the ulceration was dependent upon the presence of the syphilitic virus, and fortunately success followed the administration of the remedy.

I remember some years ago meeting with a similar case. The patient had been married about ten years, had never conceived, and the soft palate was ulcerated to a very great extent; the ulcer apparently was epithelial cancer. I could not find that any symptoms of syphilis had ever been observed, but as this large chasm was rapidly increasing in size in spite of all treatment, and as death seemed to stare my patient in the face, I prescribed mercury, and had the pleasure of noticing that under its influence the ulcer gradually healed.

I always look with more suspicion upon an ulcer of the soft palate, a part out of reach of local irritation, than to one of the lip, cheek, or tongue, parts which are apt to be irritated, the first by pipes, the remaining two by teeth decayed and broken.

The fourth case shows how necessary it is in all cases of sterility to consider the possibility of syphilis being the cause of the complaint, to inquire carefully into the previous history on both sides, and, if any symptoms or signs be still present to such an extent as to justify us in treating, at once to place the patient under the influence of mercury, and thus to improve health which has been deteriorated by the presence of the syphilitic poison, and at the same time, perhaps, cure the sterility, which in many cases creates a certain amount of unhappiness in a family.

From all the cases I have seen I have learnt to appreciate the great difficulty there is in the majority of instances in getting at the truth; the patient, unfortunately, will deny ever having suffered from syphilis, although the medical man may even express a hope that syphilis may be the cause of the present disorder, and state that unless it is, the case is sure to terminate fatally; and hence the necessity for looking out for an adherent iris, an eruption of the skin, or any sign which may tell a tale.

With regard to treatment, except for nodes and gummata, I have found mercury the only remedy. Of course, if the patient be in a cachectic state of health, be suffering from rupia or ecthyma, which, as a rule, are preceded by a phagedænic ulcer, nitric acid and bark or other tonic remedies must be given first; but at some time or another mercury must be given, and I believe it is better to give it in small doses and for a prolonged period than in large doses for a short time; and although the iodide of potassium has a somewhat similar effect to mercury upon the system, acts upon the secreting and excreting organs, promotes absorption, and in syphilis relieves the pain from nodes and removes the swelling, I think it is far safer, even after the nodes have entirely disappeared, and the pain from them has entirely subsided, to place the patient under the influence of mercury, to secure, as far as possible, immunity from further danger from other and more serious evidences of the presence of the disease than nodes, for how often do we meet with patients suffering from tertiary symptoms who have previously had nodes, which have been effectually cured by the administration of iodide of potassium, which has been given for a prolonged period.

BEQUESTS ETC. TO MEDICAL CHARITIES.—The Great Northern Hospital has received £450 under the will of Mrs. Hunt. The Leicester Infirmary has received £288 3s. under the will of Mr. John Spencer, of Aston. Mr. John Purcell Fitzgerald bequeathed £200 to the Salford and Pendleton Royal Hospital and Dispensary, and £100 each to the East Suffolk and Ipswich Hospital, the Essex Hall Asylum for Idiots, near Colchester, the London Hospital for Diseases of the Heart, the Royal London Ophthalmic Hospital, and the Brompton Hospital for Consumption.

NOTES ON SOME OF THE LESS COMMON FORMS OF SCARLATINA, WITH CASES.[1]

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SCARLATINA SINE ERUPTIONE.

CASE 1.—During the prevalence of scarlet fever in a severe form, on May 3rd a youth, aged sixteen, was taken ill, and had severe rigors. The bowels were much purged. On the 5th the tongue was dry and brown, throat painful, tonsils swollen and deep red, covered with thick, glairy mucus. There was copious discharge of mucus from the nose. He had a very anxious look about his face. Pulse 130, small and weak. The next day, May 6th, general condition the same; delirious all day; kept constantly trying to get out of bed. He was evidently in a very critical condition. I had formed the opinion that he was suffering from scarlatina. I ordered compound tincture of chinchona, tincture of digitalis, and solution of acetate of ammonia. The next day he was more composed, and looked less anxious. The tongue was moist, red round the edge, and furred in the centre; tonsils less swollen; the nasal discharge purulent; purging abated; pulse fuller and slower. On the 9th the tongue resembled a strawberry, as in scarlatina; tonsils normal in size, but with the soft palate covered with superficial ulceration. The case did well, and there was a good recovery. There was no desquamation.

CASE 2.—On May 9th, in the same house, the servant girl, aged fourteen, suffered from high fever. Throat and soft palate were red and painful. There was no rash, and no desquamation.

CASE 3.—On May 9th, in the same house, the daughter, aged eight, suffered from high fever. The throat was red, as in scarlet fever. The skin was red all over, as from slight erythema rather than scarlatina.

CASE 4.—On May 10th, in the same house, an infant had a well-marked attack of ordinary scarlatina, with rash freely out.

CASE 5.—On May 15th, in the same house, the son, aged six years, had a sharp attack of well-marked scarlatina. The rash was thickly out; the soft palate and tonsils were of a deep-red colour and dotted with ulcers. There was copious desquamation.

I could give other instances similar to these. There was no doubt about there being no rash in the earlier cases. I directed special attention to them. Sir William Jenner says of "scarlatina sine eruptione": "I doubt the existence of this. There are many cases where the eruption is very slight indeed, just a scarlet blush lasting a few hours, and perhaps there are cases without any rash."[2] On the other hand, Bretonneau says:—"Although the cutaneous eruption which usually accompanies scarlatinal angina presents a character which is easily discerned, it cannot be doubted that the phlegmasia of the pharynx proper to scarlatina often exists without being accompanied by the other symptoms of scarlatina."[3] Graves, Trousseau, Wunderlich, and others express opinions similar to Bretonneau's.

CASE 6.—Here is another case which occurred during the same epidemic as the others. Mary T——, aged twenty, an unhealthy, anæmic girl, who suffered from leucorrhœa and repeated abscesses of the labia at the menstrual periods, was taken severely ill on June 12th with sore-throat and fever. There was diarrhœa with severe headache and delirium. The tongue was at first heavily furred, and then presented the strawberry appearance of scarlatina. The throat, tonsils, and soft palate were swollen, and of a deep-red colour. There were for a short time a few red punctuations under the skin, but from first to last there was no rash. There was free desquamation subsequently. She made a good recovery. This girl was very ill, and the diagnosis lay between brain-mischief and scarlatina, which was epidemic at the time. I expressed the opinion that it was the latter, as it afterwards proved to be. Trousseau mentions several cases similar to this; in most of them the rash

[1] Read before the Doncaster Clinical Society, May 6th, 1879.
[2] THE LANCET, Jan. 8th, 1870.
[3] Memoirs on Diphtheria, New Syd. Soc., p. 100.

came out, but very late. In many cases where there is rash the illness is comparatively slight, but occasionally it is severe, as in Cases 1 and 6 of the foregoing series, where there is great danger of death from adynamia. In some epidemics there is a considerable percentage of cases without rash, while in others there are few or none. There are cases where death takes place before the rash has time to come out, the patients being knocked down by the strength of the poison, but these belong to a different class.

SCARLATINA, WITH AFFECTIONS OF THE JOINTS AND OF THE HEART AS A COMPLICATION.

CASE 1.—A girl, aged seven years. The rash came out freely. The tonsils and throat were red and swollen, but not ulcerated. On the tenth day of the illness the wrists, knees, and ankles were swollen and painful. The shoulders followed, and there was severe pain in the back of the neck. The urine was at the time scanty and high-coloured. The pain and swelling lasted three or four days, and subsided. There was subsequent great debility, but the case made a good recovery.

CASE 2.—A girl, aged twelve years. The scarlatina rash came out freely. On the third day of illness the back and upper part of the front of the chest and the legs were covered with miliary vesicles in addition to the scarlet rash. On the sixth day there was free desquamation on the hands, back, and front of the chest, and on the legs the vesicles were opaque. The ankles and feet were stiff and swollen; so also was the right elbow. There was pain of a rheumatic character. The urine was clear, of sp. gr. 1015; it deposited albumen to $\frac{1}{16}$. There were also transparent tubular casts and epithelium. The stiffness and pain in the joints lasted three or four days, and subsided. Subsequently the nails, in the course of their growth, showed a furrow marking the date of the illness.

CASE 3.—A younger sister of the last patient. The scarlatina rash came out freely over the body. There were no vesicles. The throat was very sore and red, but the tonsils were not swollen or ulcerated. On the fifteenth day of illness desquamation was proceeding. Most of the joints were painful and swollen, and the finger-ends and toes appeared likely to slough; indeed, there appeared to be pus under the skin, but it was subsequently absorbed. The urine was scanty, and there was a heavy deposit of salmon-coloured lithates. The sounds of the heart were not altered.

CASE 4.—A girl, aged sixteen years. The scarlatina rash came out freely. The tonsils and soft palate were of a deep red colour, covered with white pultaceous matter. There was no ulceration. On the sixth day of illness the wrists were painful and swollen. The urine was of sp. gr. 1030, and there was no albumen. The pain and swelling of the joints lasted four days, and then subsided. There was a good recovery.

Trousseau says of this class of cases:—"Rheumatism complicates one-third of all cases of scarlet fever in adults during the acute stage, but is overlooked owing to its being confined to two or three joints, usually the wrists, and also to its being very slight. ..... It is important to know this, for acute affections of the joints—general arthritis,—pericarditis, and endocarditis frequently occur during the course of the disease. ..... They seem to be of the nature of rheumatism. ..... Generally speaking, scarlatinous rheumatism attacks the joints in the first instance, and then the serous membranes of the heart and pleura; but sometimes, like pure rheumatism, it seizes on the thoracic organs at the first brunt without touching the articulations. ..... The coincidence of rheumatism with scarlatina was nevertheless a generally forgotten fact; and consequently for several years past I have been constantly insisting upon it in my lectures."[4]

Hebra[5] expresses himself in a similar manner. Dr. Richardson, speaking of cases of this class, says:—"There was the fact, in spite of any hypothesis to the contrary, that two diseases may exist in the same body at the same time."[6] But I would ask, Is rheumatism a *disease* to be spoken of in the same sense as scarlatina? Niemeyer considers these so-called rheumatic symptoms a localisation of the action of the poison of scarlatina in the parts affected as much as it is in the throat and kidney affections.

Sir Thomas Watson[7] considers them due to the retention in the blood of a poisonous excrement, by the default of the principal emunctories, and especially the kidneys. Dr. West says:—"As in other blood diseases, so in scarlet fever, we meet now and then with secondary inflammation of the joints, which may even go on to the formation of pus."[8]

CASE 5.—The worst case I ever saw—and it is one which well illustrates some of the foregoing observations—was as follows:—Clara H——, aged ten, began to be ill with scarlatina on July 6th. There was an epidemic at the time of unusual severity, the weather being intensely hot. Her brother was ill with the fever in the same room, and died with diffuse suppuration in the cellular tissue of the neck. With the girl the eruption came out on the second day of illness; it was confined to a single patch on the abdomen about six inches in diameter, and was very dark in colour. The tonsils were much swollen and of a dark-red colour, but not ulcerated; pulse small; urine scanty and high-coloured. On the second day of eruption—the fourth of the illness—the wrists and knees became painful and greatly swollen. The following day symptoms of pericarditis set in with great violence, attended with continuous delirium. The heart beat so tumultuously that the sounds could not be distinguished. The pulse at the wrist could not be counted. I gave tincture of digitalis and tincture of opium, of each five minims, with ten grains of nitrate of potassium, every two hours, until easier. The next morning she was much better every way; the heart was more tranquil, the sounds were distinct, accompanied by a "to-and-fro" friction-sound; the pulse was 125, and of fair strength; the joints were less painful and swollen; urine more plentiful; delirium occasional only. She continued the medicine at longer intervals for three days, and was then put on tonics. Three months afterwards she had regained her strength; the sounds of her heart were then clear, and there was no friction-sound.

Dr. George Budd, of King's College, has recorded[9] a case of this kind, in which, after death, recent lymph was found on the surface of the heart, and a few ounces of serous fluid in the pericardium. No abnormal sound had been heard before death, though the action of the heart was feeble and irregular.

I have a long series of cases of this so-called rheumatic complication, and nearly all of them were children. In all the illness was of a severe character; the fever was high; the rash deep-coloured; the tonsils deeply congested or ulcerated; the urine albuminous, or depositing salmon-coloured lithates. The nails have been subsequently furrowed, corresponding with the date of illness. I am, therefore, inclined to the belief, as expressed by Sir Thomas Watson, that the complication results from the retention of poisonous excrement in the blood, and that it is a form of septicæmia. In some epidemics the majority of patients are affected with these so-called rheumatic symptoms, so that they give quite a character to the epidemic. In other epidemics there are no cases at all. Like the other complications of scarlet fever they appear to depend more on the character of the epidemic than on the individual peculiarities of the patients.

The milder cases do not require any special treatment; the symptoms subside in three or four days; but the more severe forms will require appropriate treatment, the possibility of anchylosis or suppuration being specially borne in mind, and so also the possibility of mischief about the heart.

Doncaster.

[4] Clinical Medicine, New Syd. Soc., ii., p. 181.
[5] Diseases of the Skin, New Syd. Soc., i., p. 199.
[6] Clinical Essays—Scarlet Fever, p. 85.
[7] Lectures on Medicine, vol. ii. (1857), p. 903.
[8] Diseases of Children (1859), p. 727.
[9] Medical Times and Gazette, Nov. 29, 1862, p, 572.

CASE OF POPLITEAL ANEURISM,

CURED IN TWENTY-EIGHT HOURS BY COMPRESSION OF THE FEMORAL AFTER THE APPLICATION OF ESMARCH'S BANDAGE FOR ONE HOUR.

BY DANIEL THORNTON, L.K.Q.C.P.I.,
SURGEON ARMY MEDICAL STAFF.

SERGEANT GEORGE T——, orderly-room clerk of the 2nd Brigade Depôt, aged thirty-seven, service nineteen years, was admitted into hospital on Oct. 1st, 1877, with aneurism of the left popliteal artery. He is a strong, healthy, muscular man, rather spare than stout, married four years. Had been a total abstainer from alcohol for

some months, but was accustomed previously to drink two or three pints of beer in the day. There was no history of syphilis, except that before enlistment he had what appears to have been a non-infecting chancre with suppurating bubo, from which there remains a scar in the left groin.

He stated that about the end of July last he strained his left leg, and that in a few days afterwards he found a small swelling in the ham, which gradually grew larger, and that after a while he noticed pulsation in it. Previous to admission he felt pain and numbness down the leg and in the foot when walking or standing, but none while lying. The tumour was in the centre of the left popliteal space, and measured three inches in the transverse diameter by two in the perpendicular. The circumference round the patella was half an inch more than that of the corresponding limb. The tumour was very expansile, with a full pulsation, which could be controlled by digital compression of the femoral below Poupart's ligament. The patient also had large varicose veins on the same leg. He was immediately ordered to bed on admission, and got beef-tea diet, with eight ounces of fish added, and was told to drink but little fluid. He was directed to practise digital compression of the femoral artery himself from time to time.

On the forenoon of the 6th October, Dr. Macdougal, of Carlisle, kindly brought an Esmarch's bandage and band and a Signorini's tourniquet. At first the bandage was applied to the limb, and then the band to the lower third of the thigh, the bandage being removed. The effect was to stop the pulsation in the tumour very nearly completely, but the pain produced was too severe to be borne. The band was then removed and the bandage applied as before, tightly from the toes up to the knee, then loosely and tight again above the knee, and pinned on; Signorini's instrument was at the same time applied below the groin. (Time 12.10 P.M.) The pulsation in the tumour was thus almost completely stopped, and at first but little pain was produced. After a short time, however, the tourniquet began to cause pain, which the patient tried to bear until he suddenly fainted. The tourniquet was then removed and brandy administered, Esmarch's bandage being left on. During the syncope the pulsation in the tumour ceased, but quickly returned with the reaction after the stimulant. The tourniquet was then replaced, but not so tightly, and when the bandage had been on for one hour it was removed. Soon afterwards, a "Carte's compressor" was applied below the "Signorini," pressure being kept up with the two instruments, each being constantly shifted; but the pulsation in the tumour was only incompletely controlled. At 4.30 P.M. no appreciable change had taken place, but the patient was learning to manage the instruments himself and to lend valuable assistance. At 6.30 P.M. the pulsation in the tumour appeared to be more easily controlled. At 9.30 the improvement was not maintained. Incomplete compression was continued, but for a few hours during the night the instruments were removed to permit of some sleep being obtained. While the instruments were off, pain was felt in the tumour, and the patient was glad to have the compression reapplied.

On the 7th, at 11 A.M., I injected half a grain of morphia under the skin of the thigh of the affected limb. The effect was most beneficial. From that time complete compression was kept up, causing scarcely any pain. At 2.30 P.M. the compression was momentarily eased for observation, and the pulsation in the tumour was found to be very feeble. At 4.30 P.M. I found the pulsation to be completely controlled with very little pressure on the femoral, and I concluded that the clot was formed at that time. The compression was maintained. At 6.30 P.M. I loosened the instrument for observation, and found the tumour to be quite free from pulsation.

On the 8th, at 10 A.M., the tumour was being consolidated. There was good collateral circulation. The foot was warm, and a superficial artery at the inside of the knee-joint was felt pulsating with almost the volume of a radial.

Slight compression was kept on the femoral for two days more, and on the 19th he was discharged quite cured, only a little stiffness remaining in the leg.

I have to thank Dr. Macdougal for the kind assistance he gave me and for the interest he took in the case.

Carlisle.

SOME DYNAMOMETRICAL OBSERVATIONS ON MIDWIFERY FORCEPS AND THE FLEXORS OF THE HAND.

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IN Dr. Barnes's paper, published in THE LANCET of May 17th, on the Use of the Forceps, the long and short forms of that instrument are compared and contrasted, and it is especially pointed out that the former not only possess the greater power in traction and leverage, but that they alone are able to compress the fœtal head. The short forceps, it is there stated, as it is with equal emphasis and at greater length in Dr. Barnes's "Obstetrical Operations," has absolutely no effective compressive power, and that it clings to the head only from the curve of its fenestrated blade aided by the pressure of the vaginal walls.

Now, with the greatest respect for the opinions of so distinguished a teacher, I submit that the above statement should be considerably modified; for, the forceps being an example of a lever of the first order, the power being applied at the handles, the edge of the lock being the fulcrum and the blade the other arm of the lever, it follows, *cæteris paribus*, that the shorter the blades in proportion to the length of the handles the greater is the potential force expended on the object within their grasp.

And I would here suggest that the error of regarding the long forceps as necessarily the more powerful instrument has arisen partly from its more formidable, or, as Tyler Smith calls it, "martial" look, but mainly because one sees short forceps with handles so extremely small and blades so thin that all power, save that of feeble traction, appears to be sacrificed to innocence in appearance and facility of introduction. But it is evident that these defects are accidentals, and do not belong more to one form than the other; for, if we compare the short forceps of Smellie or Collins with the long one of Lever or Ashwell, we shall at once see, bearing the properties of the lever in mind, that the former are by far the more powerful instruments, provided, of course, that the maker has given each of them blades and shanks of equal strength. And, on the other hand, if we compare Barnes's long with Simpson's short forceps, we are contrasting an instrument powerful in all respects with one of the weakest; but nevertheless most useful just at the end of a tedious natural labour.

Not being able to find in any English work a table similar to that drawn up in 1865 by Delore for French instruments —but which I have not seen,—giving the comparative size and power of the forceps generally used in this country, and thinking that it might be interesting to the profession, after the late discussion at the Obstetrical Society, to have such data, I have made a few careful measurements and experiments, with the following results:—

Long Forceps.

——	Length of handle, in inches.	Length of (shank and) blade.	Total length.	Ratio of handle (=1) to blade.	Resultant of 50 lb. pressure, in lbs.
Ashwell's	3¼	10¾	14	3·3	10·5
Barnes's	4½	10	14½	2·2	15·4
Blundell's	4½	9½	14	2·1	19·0
Hodge's	8	9	17	1·1	61·0
Lever's	4¼	10¼	14½	2·4	13·4
Simpson's	4¼	8¼	13½	1·8	20·2

Short Forceps.

Clarke's	4½	7	11½	1·6	31·0
Collins's	4	6	10	1·5	34·0
Denman's	4½	6½	10¾	1·5	33·5
Inglis's	2½	8	10½	4·2	10·0
Simpson's	2	7½	9½	3·7	9·6
Smellie's	4½	6	10½	1·4	36·0

Lever of the third order (intermediate length).

Assalini's	5½	7	12½	1·02	25·0

The table explains itself, with the exception of the figures in the last column. These give the pressure which a weight, or any other compressing force, equal to 50 lb. avoirdupois, acting on the middle of the handle (or, in the case of Hodge's, two inches from its distal extremity), would produce in the centre of the arc of the head curve. And I should explain that the position of the latter point varies greatly, even in instruments of the same length, from the presence or absence of a shank, and, to a slight extent, from the varying radius of the pelvic curve in those possessing it. The force was determined indirectly by means of sliding weights hung on a long balance-beam, graduated into inches and tenths, side by side with the blade under observation.

Although only one blade was taken for the experiment, it is assumed that the pressure would be given by means of both, the hand or hands grasping both handles with the head of the fœtus between the fenestræ. And, also, it is clear that although, for the sake of simplicity, the resulting pressure is calculated as acting on two points only in the line of the minor diameter of the oval, in actual practice it would be diffused over the whole surface within the grasp of the blades; and, as this differs very greatly, the actual compressive power would vary to the same extent.

Now it will be seen from the table that the most powerful instrument is that of Hodge, which is designed on the continental model with French locks; but the handles are so long and gape so widely that it could scarcely be used, I think, except in the continental (lithotomy) position. The next in power is Smellie's *short* forceps; then three more of the same class, before we come to Simpson's in the long division,—and so on; in fact, if we exclude Hodge's, as an exceptional form, it is clear that the short forceps are collectively the more powerful instruments; but I leave the figures to speak for themselves. I should mention, however, the loss of power due to flexure of the blades, and especially of the shanks. This is, of course, the greatest in the long forceps, with the exception of those of Barnes and Simpson, which are very strongly made. One blade of Lever's, with the handle firmly fixed in a vice, yielded from ·51 in. to ·66 in. as a suspended weight of 20 lb. was slowly moved from the centre to the point. Assalini's gave, under the same test, from ·78 in. to ·82 in.; whilst the short forceps of Simpson, with their stout blades pierced only by a narrow fenestra, bent only from ·20 in. to ·38 in. This loss may be compensated for, as Dr. Thorburn pointed out,[1] by separating the handles close to the lock by a screw passing through one of them, or by the introduction there of a wedge.

As the force employed must (even when supplemented by a screw) be ultimately referred to the hand of the operator, it occurred to me that we might approximately estimate the value of this force by fixing one of the handles of the forceps and converting the blade of the other into a steelyard. I have had an instrument of the kind made; the handles, of iron guarded with wood, are four inches long, and exactly resemble those of Collins's forceps; the bar is twenty-four inches long and one inch broad, strong enough to be sensibly inflexible when fully loaded, and carefully graduated; the sliding weight gives an inertia of from 20 lb. to 240 lb., and is so supported on the inclined base that when at rest the ends of the handles are always one inch apart. As the mean power of the hand would be exerted in the middle of the handles, it is assumed that the total force is acting there.

I have had time to make only a few trials of hand-strength with the instrument, but I am surprised at the results. We are all familiar with the perfect mobility, the firmness and precision, and yet fairy-like delicacy of touch displayed by educated fingers, but I had so underrated the power they possess that my first sliding weight gave but 100 lb. as its maximum. I have had to move more than double that weight.

In order to avoid bringing the leverage of the forearm involuntarily into action the experimenter either sits with the handles level with his elbow, or, if standing, as one generally does when using the forceps, keeps the arm firmly fixed against his side; then, grasping the handles somewhat obliquely with the whole of the palm within their length, contracts the fingers and thumb as strongly as he can; the weight is then moved smoothly from the centre until it overpowers his strength. The weight that can be merely lifted is, of course, far greater than that which can be sustained. As examples of the former case, I found that a young lady—a good lawn-tennis player—could lift 70 lb., a *confrère* 122 lb., a stalwart blacksmith 225 lb. My own hand, with the handles level with the elbow, raised 95 lb.; but, standing with the arm rigidly fixed to the side, 110 lb.; with the leverage of the arm, 150 lb. But I could not sustain either for more than thirty seconds, and not more than 50 lb. for five minutes. My impression is, that in using the forceps in actual practice, I rarely exert, except when I am using both hands, a pressure exceeding 50 lb. on the handles. Now, with Simpson's forceps, this would give 20 lb. distributed over about one-fourth of the head—a force that is scarcely appreciable beside the enormous pressure of a contracting healthy uterus, and which must surely do but little in compressing or moulding the globe within the grasp of its blades; and we must remember that, when these have seized the head, still wholly within the uterus, quite one-third of that organ is encircling them and it, and exerting a compressing power which it is scarcely an exaggeration to say should be estimated in *centals* rather than pounds; its contraction, moreover, being probably rendered more intense by the irritation of the foreign body within it.

How, then, can we judge, except in the case of absolute uterine inertia, how much of any apparent moulding of the head may be due to the forceps, and how much to the uterus itself? And, again, in pulling a grasped elastic spheroid through a ring smaller than itself—to use the old illustration,—is there really any need for a compressive power in the tractor at all? Will not the inverted wedge-action of the ring itself produce the necessary elongation and diminution in diameter? All that is essential is that the tractor shall have such a shape that it cannot slip off, that it shall be smaller than the ring, and that there shall be sufficient *vis à fronte* to overcome the passive resistance of the spheroid. And in using the long forceps I have been struck with the facility with which a head that had made no advance after hours of severe pains was brought down, but it did not seem to me that it was due to any compressive power in the comparatively weak instrument (Lever's) I generally use, but rather to the circumstances that the head was steadied, that it was placed in a more favourable position, and that the lines of traction, of exit and uterine force were coincident. For, when the head is above the brim, traction is made almost in the axis of the patient's body and of the uterus, and the latter, containing nearly the whole of the fœtus, is acting with its greatest mechanical advantage, contracting, but uncontracted, like a spring which is beginning to uncoil.

But when short forceps are being used, and the head is within the cavity of the pelvis or pressed against the perineum, the conditions are very different: traction has to be made downwards, forwards, and then upwards, in the line of Carus's curve; the uterus, greatly contracted, is acting with shortened fibrillæ, like a spring half uncoiled; and the body it is extruding is lying most disadvantageously for its passage, the uterine force, acting in a right line, tending to force the head on to the coccyx and through the perineum instead of through the osteum vaginæ. This will be more clearly seen if we imagine the sharp curve formed by the coccyx and the lower part of the sacrum to be reduced to a wedge with right-angled sides; then, the uterine force acting perpendicularly to its base, it would evidently lose half its momentum by impinging on the inclined plane. I contend, therefore, that an instrument which extracts a tightly impacted head under these circumstances does more itself, if I may use the expression, and is much less helped by the natural expulsive forces, than one which has seized it above the brim; and that, without reference to the table I have given, it is evident that short forceps, with handles, say, four inches in length, *must* be more powerful compressors as they are than they would be if a shank were inserted between their locks and their blades, or the latter doubled in length.

At the bottom of the table I have placed Assalini's admirable instrument, which differs from the others in being a lever of the third order. It is little used in this country, and Dr. Braxton Hicks made the same objections that Dr. Barnes does,[2] when I was telling the former how useful I found it—that it has little holding and no compressing power, and is very liable to slip. Now, except when the head is very high up, the hand (or hands) grasps the flattened shanks exactly between the fulcrum and the centre of the blade; the force employed is, therefore, equally divided

[1] THE LANCET, May 17th, 1879, p. 707.

[2] Lectures on Obstetrical Operations, p. 27.

between them; so, taking the estimate of my own strength as an example, a pressure of 25 lb. could be kept up for a long time, and for a shorter period—especially with both hands—three times as much if it were necessary. The flexure of the shanks is a positive advantage, for, as it is impossible to make them meet, there is little loss of power, and the curvature of the blades being lessened in front greatly assists in giving that ellipsoidal form to the head which most facilitates its exit, whilst it is never so great as to endanger their hold; I have never known them to slip, and they can be introduced and locked, it seems to me, more readily than any other form.

I may add, in conclusion, that I use the forceps freely, in mercy to the mother and consideration for the safety of the child: the short forceps about once in every eight labours, including those simple cases in which I have, unconsciously to the patient, slipped in Simpson's little instrument to help a delayed head through the ostium vaginæ, and so spared her perhaps an hour's pain; the long forceps four times in the last five years, but never through an undilated os. Craniotomy I have performed but once in my life, and then on a dead child; and, I am thankful to say, I have never had the misfortune to inflict the slightest injury on the mother, and only temporary mischief on the child, however great the force I have been obliged to employ.

Ixworth, Suffolk.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

CHARING-CROSS HOSPITAL.

EPITHELIOMA OF BACK OF HAND; REMOVAL.

(Under the care of Mr. BELLAMY.)

FOR the notes of this somewhat rare case we are indebted to Mr. Albert Leahy, surgical registrar.

William L——, aged sixty-one, a powerful-looking labourer, was admitted June 3rd, 1879. About eighteen months ago he first noticed a small swelling in the centre of the dorsal surface of his right hand; this increased slowly, and in six months reached the size of a cherry-stone, and had the appearance of a large wart. Taking the advice of a friend, he tried the application of "spirits of salt." The growth became rather painful and inflamed, and eventually fell off, leaving a raw granulating (?) surface. The hand and fingers were œdematous. The ulcer increased and became more painful, accompanied by great pain in the arm.

On admission, there was a granulating surface about the size of a florin, with small readily-bleeding granulations. The surface of the ulcer was slightly raised above the level of the true skin, and its edges were rather prominent. There was infiltration and thickening of the tissues in the immediate vicinity of the ulcer, and it discharged freely. It was considered epitheliomatous from the first, and after a careful examination by Dr. Sangster it was considered advisable to remove it. This was accordingly done on July 10th by a free incision, giving the surface a wide margin and going down to the bone. The periosteum was rather rough, and gave the appearance of being involved.

The wound was dressed with carbolic oil and subsequently with iodoform; it looked healthy but suspicious, and will probably soon require more energetic treatment.

Microscopical examination showed the removed mass to be true epithelioma.

WEST NORFOLK AND LYNN HOSPITAL.

TWO CASES OF TUBERCULAR LARYNGITIS, ONE FATAL, THE OTHER RELIEVED BY TRACHEOTOMY.

(Under the care of Dr. DALE.)

FOR the notes of the following cases we are indebted to Mr. Arthur G. Blomfield, M.R.C.S., house-surgeon.

CASE 1.—J. C——, aged thirty-eight years, labourer, was admitted on December 26th, 1878, complaining of loss of voice and failing health. There was a history of strong phthisical tendency in the family: one brother died of phthisis; a sister was at this time under treatment for loss of voice, &c. (see Case 2); and another sister had lately shown symptoms of laryngeal disease.

The patient had always enjoyed good health until five or six months' before, when he first noticed that his voice was hoarse and getting weak. This hoarseness gradually increased; he had a slight cough about this time, and had expectorated a good deal of mucus, at times blood-tinged. He has also lost flesh rapidly.

On admission he looked much emaciated, and was very weak; the voice was reduced to a whisper; cough not well-marked; expectoration muco-purulent. Examination of the larynx externally showed thickening, and a degree of increased hardness to the touch, which, however, gave rise to very little pain. Examination by the laryngoscope was attended with difficulty, and but little was made out; the left cord was, however, seen to be thickened and prominent. There was dulness on percussion under the right clavicle in front with slight crepitation, but no marked dulness was detected in other parts of the chest.

The patient was placed on meat diet. He was ordered to take four grains of iodide of potassium thrice daily, and to inhale by means of Siegle's steam-spray inhaler a two-grain solution of nitrite of silver three times a day. Under this treatment he continued without any marked change until Jan. 4th, when four grains of hypophosphate of soda was substituted for the iodide of potassium.

On Jan. 6th there was a marked change. The patient had considerable dyspnœa, with inability to expectorate freely; thick tenacious mucus hung about the fauces, and required to be removed with the hand. Œdema glottidis was suspected, but did not exist. Later on in the day he appeared better, the breathing being easier, and he took milk and beef-tea freely, but he died suddenly in the night while asleep, and apparently from exhaustion.

Necropsy, thirty-six hours after death.—The larynx and upper part of trachea were carefully dissected out. On opening the larynx from behind, the mucous membrane was found to be much congested and thickened, the surface being also studded with small tubercles which in parts had ulcerated, leaving small superficial erosions. The mucous membrane of trachea was congested and thickened. The right vocal cord was entirely destroyed by ulceration, and the cicatrix was adherent to the lower part of ventricle, forming together a large depression as contrasted with the left vocal cord, which was much thickened and prominent. Both lungs were studded throughout with small miliary granulations; the apices and bases being especially so. The heart was normal. On cutting into the liver, a cyst, the size a of bantam's egg, with thick walls, was opened, containing thread-like materials of a dark-green colour, and on the floor of this cyst was a collection of yellowish-green crystalline bodies. The other organs were healthy.

CASE 2. *Loss of voice; urgent laryngeal spasm; tracheotomy; relief.*—Elizabeth B——, aged twenty-nine years, married, was admitted on December 16th, 1878, with loss of voice, and occasional attacks of suffocative dyspnœa, which at times threatened her life. This patient was a sister to J. C——, whose case is recorded above. She had always enjoyed fairly good health until her last confinement in July, 1877, since which time she had noticed that her voice had become gradually weaker. She had had very little dyspnœa until the last month, when it had been urgent at times. Her general appearance was fairly good, though she thought she had lost flesh a little lately. She was seven months pregnant.

Her general health being good, it was determined to try the effect of mercurials, and half a drachm of the mercurial ointment was ordered to be rubbed into the armpits (alternately) night and morning; a combination of iodide of potassium and solution of perchloride of mercury was given internally; and the patient was also ordered to inhale nitrate of silver, as in the preceding case. She was confined to a small ward by herself, and the air was kept moistened by steam.

On Dec. 19th she had a somewhat urgent attack of dyspnœa in the morning. A consultation was held as to the advisability of performing tracheotomy, but it was decided to give the treatment already adopted a further trial of some days. Two grains of calomel and half a grain of opium were

given every four hours. She had several brief attacks of dyspnœa between the 19th and the 26th. On the morning of the latter day she had another and more severe attack. It was decided to perform tracheotomy, and the high operation was accordingly done by Mr. Wilson, and a silver tube introduced. Evening temperature, 102° F. She slept a little; occasionally mucus was expectorated through the tube.

Dec. 27th.—Morning temperature, 101·5°; evening, 99·6°. Pulse 120.

28th.—Pain around wound and in trachea; free expectoration of muco-pus through the tube. Morning temperature, 99°; evening, 101°.

29th.—Complained of pain in the chest; pulse irregular, 110; respiration 38; morning temperature 101°. As it seemed that the silver tube was causing a very considerable degree of irritation about the trachea, it was taken out, and a large-sized red rubber tube was introduced. The irritation in the trachea gradually subsided after this, and the benefit of using the rubber tube was subsequently well seen. Ordered to take three grains of carbonate of ammonia and twenty drops of spirits of chloroform in water every three hours. To have also half a glass of sherry every six hours, milk and beef-tea frequently.

Jan. 2nd.—Better. Pain in swallowing. Ordered to take chopped meat instead of beef-tea.

3rd.—Mucus expectoration free. To have half a glass of sherry every four hours.

4th.—Pain under left nipple severe; breathing rapid. Morning temperature 102°; evening 101°. Bowels freely open.

7th.—Had a curious and brief attack of dyspnœa this morning, the face becoming slightly cyanotic, the pulse bounding, and the respiration hurried. The tube was quite clear. Ordered half a glass of champagne every three hours, and to continue the wine. Morning temperature 100°; evening 100·5°.

9th.—To discontinue the champagne.

10th.—To take a teaspoonful of cod-liver oil twice a day. Between Jan. 9th and Jan. 19th the temperature ranged from 99° in the morning and 100° in the evening. The breathing was easy, and the appearance of the patient improved.

22nd.—Left side of chest dull on percussion behind up to level of the middle of the scapula. Owing to the noise made by the patient in breathing through the tube it was difficult to make out the auscultatory signs. The right side was quite clear on percussion. Sweating at night well marked. To take three grains of extract of hop and two grains of oxide of zinc every night.

Feb. 1st.—The dulness of the left side remained unchanged; the breath-sounds were very feeble or almost absent, pleuritic effusion having ensued; but the patient's general health had improved, and as her confinement was approaching she was discharged.

9th.—The patient was going on satisfactorily.

Remarks by Dr. DALE.—The first of the cases reported above is interesting from the complete destruction of the right vocal cord, and the very abundant deposition of miliary tubercles throughout the whole of both lungs, and without the least sign of ulceration attending it. It would seem to have been general tuberculosis of a low asthenic kind, without the active symptoms of that disease. In the second case there was probably tubercular deposit both in the lungs and larynx. The operation of tracheotomy was, I think, justified on two grounds—(1) for the patient's own sake, and with the view of relieving the very urgent laryngeal spasm, which frequently threatened suffocation; once I thought she would have died from this cause whilst I was using the laryngoscope; and (2) to preserve the life of the unborn child, of which, as has been stated, she supposed herself to be seven months pregnant. The operation may be considered to have succeeded as regards the former of these objects, for the patient has had no severe attacks of threatened suffocation since it was performed, and though effusion into the left pleura, complicating the case, has supervened, it may be reasonably hoped that the latter will also be attained, by her life being prolonged, at least, until she gives birth to the child at its full time. It is also noteworthy in connexion with these cases that a brother has died of consumption, and a sister is at present threatened with laryngeal mischief, which in all probability is tubercular.

The woman was confined during the last week of February. Both mother and child did well.

Reviews and Notices of Books.

A Treatise on Surgery, its Principles and Practice. By T. HOLMES, M.A. Cantab., Surgeon to St. George's Hospital. Second Edition. Smith, Elder, and Co.

A Manual for the Practice of Surgery. By THOMAS BRYANT, F.R.C.S., Surgeon to Guy's Hospital. Third Edition. J. & A. Churchill.

The Principles and Practice of Surgery. By D. HAYES AGNEW, M.D., LL.D., Professor of Surgery, University of Pennsylvania. In two volumes. Vol. I. Philadelphia: J. B. Lippincott and Co.

THE second edition of Mr. Holmes's work does not show such signs of thorough and careful revision as we had hoped to see and had a right to expect. Some alterations have been made and corrections effected, but many of the faults which were only too prominent in the first edition are still to be recognised. The arrangement of the subjects is in many parts faulty: thus we find a description of Genu Valgum in the chapter on Deformities, while its treatment is discussed, or, rather, stated, under the heading of Rickets; Periostitis is introduced between Ostitis and Osteomyelitis and Caries, and these are quite separated from Hypertrophy and Atrophy; Gonorrhœa is described with syphilis, and is quite apart from the Diseases of the Urinary Organs,—an arrangement defensible when gonorrhœa was held to be closely allied to, if not a part of, syphilis, but only misleading now that it is known to be a purely local affection. Several loose expressions still disfigure the book, such as "inflamed urine," and a statement that a man lived fifteen months with "paralysis of all parts below the head." Although consisting of nearly 1000 pages, there is in many places a sparseness of description and a lack of clear and distinct teaching, both as regards diagnosis and treatment, and some of the descriptions of operations are deficient in several of those minor details, attention to which is so necessary to ensure success. Mr. Holmes has to some extent modified his views regarding inflammation and healing, but the two processes are still treated in the same chapter, confused together, and healing spoken of as a part, or result, of inflammation. The statement made in the first edition that traumatic and inflammatory fever are due to the overheating of the blood in the inflamed part remains uncorrected. We are at a loss to understand how this belief can be entertained, for, were it true, a finger affected with whitlow, which raised the general temperature 2° or 4°, would require to be at a white heat at least, and nothing is more apparent than the fact that the inflammatory pyrexia is not always in proportion to the extent of the local disease. If Mr. Holmes really holds the view he enunciates, he quite fails to see the true line of treatment for these conditions: thus, to take our example of whitlow, the pyrexia would be easily and at once extinguished by holding the same finger of the opposite hand in iced water. As the healing of wounds is held to be an inflammatory process, no distinction is drawn between the true wound and the inflammatory fevers—a distinction both obvious and important, the one being non-preventable and never fatal, the other a true complication and often a very serious one. The chapter on Diseases of Bone is good; but we are surprised to find that cancer is stated to occur not infrequently as a primary growth in bone, no notice being taken of the fact that histological research has shown that tumours formerly thought to be cancerous are in truth sarcomatous growths. Some of the diagrams illustrating the operations are faulty; for instance, the line marking the incision for the ligature of the artery in Hunter's canal is considerably too low down, and the representation of the posterior tibial artery in the flap in Syme's amputation is untrue to nature. In any future

edition of this work we hope that Mr. Holmes will make a freer use of italics and variations in type than is shown in the present, and thus render the book more useful as a work of reference, while we trust the whole will be thoroughly revised.

Mr. Bryant appears to have taken considerable pains to improve this edition of his work, and to bring it up to date. It is so well known as a sound practical treatise that we feel we are not called upon to review this edition at all fully. To refer to all the alterations in it would be to allude to the whole of the many improvements recently introduced into surgery. Eighty-eight new illustrations, many of them coloured to show the anatomy of the arteries, have been added, but we notice that some of them are not quite correct: thus the femoral vein is depicted on the inner side of the artery in the whole of its course; no nerve is shown in relation with either the anterior or posterior tibial or the ulnar arteries, and the extensor brevis digitorum is drawn much too small where it crosses the dorsal artery of the foot; the diagram illustrating Pirogoff's amputation shows it as being done by the method disapproved by the author. Perhaps the part of the book which is the least satisfactory is that dealing with Pathology; for example, in the description of Septicæmia and Pyæmia there is no distinct reference to the abscesses in the lung, which are so common. Mr. Bryant states that traumatic fever is due to the circulation of morbid elements in the blood, and that it is not distinguished from inflammatory fever, and hardly separated from septicæmia and pyæmia. No doubt there are few subjects more difficult to write upon clearly and definitely than this, yet we think it is tolerably clear that there is a true wound-fever which is quite unconnected with the process of repair and any subsequent inflammation, a fever which follows all injuries and sets in as soon as the primary shock has passed off, that lasts from two to five days, and varies in severity with the tissue wounded, the severity of the injury, and idiosyncrasy of the patient, or, perhaps, more strictly speaking, his nervous stability or the reverse. If a theory of the mode of production of this pyrexia is needed, the most probable is that it is due to the effect of the injury of the afferent nerves upon the nervous centre governing the general temperature.

Professor Agnew's work does great credit to the industry and enterprise of the author. Where one man undertakes to write a book on the whole domain of surgery and enter into each subject exhaustively, it is certain that it will be unequally done, and so, while every part of this portly volume shows signs of the labour and care bestowed upon it, some chapters are of greater value and excellence than others. One marked feature of the book is the profusion with which it is illustrated, the drawings for the most part being of great excellence (although but imperfectly explained), many of them being borrowed from other standard works. On the whole, the work is thoroughly up to date, though we miss notice of some of the recent advances in pathology and treatment. Thus there is no reference to the recent observations on the changes in arteries produced by syphilis, and the author evidently doubts the agency of this disease in the production of aneurism; and in the chapter on Transfusion Dr. Roussel's convenient instrument is not noticed. Here, at last, we find inflammation and healing dealt with separately, though we have an unhappy allusion to the closure of a cut vessel by inflammatory action. Inflammation is described as a form of hypernutrition—an inaccuracy which is of consequence as likely to interfere with a wise treatment of this disease. It is rather a hyponutrition, but no good end is likely to be attained by using long words such as these, which at best can express only one side of the truth. In the chapter on Healing, Agnew differs from English authors, and states that there is only one mode of repair, which is by the organisation of a plastic exudation, or, as he calls it, an "inflammatory product," which may at once unite two closely-applied surfaces, or slowly fill up a chasm; and that there is no such thing as "immediate union." Certainly one's faith staggers when asked to believe that the wound left after an amputation of the mamma can heal completely without any uniting exudation! By some oversight, no mention is made of the external clot which forms around a wounded artery and of the important part it plays in the temporary closure of the vessel. Gunshot wounds are well treated of, constant reference being made to that splendid storehouse of facts in military surgery, the Medical and Surgical History of the War of the Rebellion. The chapter on the Injuries and Diseases of Bone is one of the best in the volume, and is very good, whilst that on Aneurism is far below it in merit. Dr. Agnew does not believe in the influence of occupation on the production of aneurism, and endeavours to defend his position by the exhibition of very poor logic; the frequent occurrence of a thrill in aneurismal tumours is not mentioned, the serious complications of this disease and accidents occurring in its treatment are not described with at all sufficient fulness, and we regret to observe that the value of the sphygmograph in the diagnosis of internal aneurism is not even noticed. The chapter on the Ligature of Arteries, however, is very well done. Professor Agnew insists on a different line of treatment from that pursued in this country, in not a few cases, and we will end this notice by alluding to two or three of these differences. Thus Bryant, Holmes, and Erichsen all advocate the use of a graduated compress for the treatment of wound of the palmar or plantar arch, and point out the danger of enlarging the wound to seek for the bleeding vessel. Agnew, on the other hand, follows out the great rule of tying both ends of a wounded vessel at the injured spot in these cases, and directs that the wound should be enlarged where necessary. Again, in cases of compound depressed and comminuted fracture of the vault of the skull Agnew recommends trephining and elevation of the fragments, whether there are signs of compression or not, while Holmes is disposed not to interfere in the absence of symptoms, and Bryant is strongly in favour of the same line of practice. Agnew speaks highly of the free use of opium in the treatment of hospital gangrene, but Holmes says it is of no special use, while Bryant thinks it is good in the ulcerative form, but not so good in the sloughy. In reference to this important subject we cannot help drawing attention to Holmes's remarkable statement that no instances of hospital gangrene have been seen in the hospitals of this country, while definite outbreaks of the disease are known to have occurred in the Middlesex, Westminster, and York Hospitals in 1835, in University College Hospital in 1841, in St. Bartholomew's in 1846 (referred to in Holmes's System by H. Coote) and in Guy's in 1849. Nor is Holmes's inference that recovery from a supposed attack is a sign of error in diagnosis better founded; indeed, Agnew states that the prognosis is favourable, that few die.

Scientific Lectures. By Sir JOHN LUBBOCK, Bart., M.P., D.C.L., &c. 8vo; pp. 187. Macmillan.

SIR JOHN LUBBOCK apologises in his preface, very superfluously, for publishing this charming book. It contains five lectures: two on flowers and insects, two on the habits of ants, and one on the study of prehistoric archæology. It contains also an address to the Wiltshire Archæological and Natural History Society. The book brings together in condensed form but most appetising style, a quantity of matter on the subjects of which it treats; and the permanent interest attaching to it is not lessened because it is eminently a work for the country and the seaside in these days of vacation. The loves of the insects and the flowers, and the social and moral habits of ants, make fascinating reading, enhanced by great excellence of typography and illustration.

THE LANCET.

LONDON: SATURDAY, AUGUST 16, 1879.

THE recent meeting of the British Medical Association in the city of Cork—the city which used to be styled the "second in Ireland"—may justly be deemed a success. Whatever views may be held as to the value of such gatherings in general, or as to the amount of good derived by medicine from them, there cannot be two opinions as to the character of this last meeting. Whether we regard the natural beauty of the locality in which it was held, the excellent arrangements made by the local authorities for a fitting reception of the Association, the brilliant social gatherings, with their admirable music, for which the city is famed, and the unbounded hospitality evinced on all sides; or whether we look to the exceptionally large number of eminent foreign scientists, or to the somewhat remarkable character of the addresses that were delivered,—we confess to finding no standpoint for adverse comment by the most captious of critics. It may be useful to glance through the proceedings of the week, more especially as in many respects the meeting showed to advantage over that of the previous year, when we felt constrained to temper our remarks with less favourable criticism.

The opening address of the President, Dr. O'CONNOR, was characteristic of its author. It was an unambitious and modest production—a graceful and kindly welcome couched in temperate and refined language. Perhaps it was a little too discursive, and thus lost somewhat by its dealing with many topics but slightly connected the one with the other. It neither soared too high, nor did it descend to the commonplace; and it seemed to have been appreciated by those who heard it. Dr. HUDSON'S Address in Medicine was remarkable in more ways than one. Apart from the able way in which it was presented, it was interesting for the novelty of its topic. It was a happy inspiration, and one for which we should be grateful—that of bringing vividly before a generation which, in the hurry and bustle of advanced modern life and doctrine, has wellnigh forgotten him, the marvellous change wrought amongst us by the advent of LAENNEC. It is true that, with our whole mind directed to the present, there is scant opportunity to busy ourselves much with the past; but it is well also to pause now and again to reflect how we have gained our knowledge, and to whom we are indebted for its foundations. So it seems that an orator in Medicine does well to remind us of the life-labour of one who laid the foundations of modern medicine, who sought with unwearied diligence to associate the morbid changes revealed by the dead body with the phenomena observed in the working of the living mechanism. It was, indeed, a new era that dawned with LAENNEC, and the manner and nature of it were clearly shown in this excellent address. To the student of the present day the period of the invention of the stethoscope must seem to be very remote, but there are still amongst us many who remember its introduction, and who will confirm Dr. HUDSON'S statement that had not its discoverer lived long enough to enforce its value by his personal precept, we might still be without this basis of clinical investigation, so coldly was it received on all sides at first. Nor must we be led to exaggerate the value of LAENNEC'S work, great as that undoubtedly was. On all sides since his day has the advance been rapid, not only in diagnostic appliances, but even more in the field of pathological anatomy, so much widened, beyond the boundaries within which MORGAGNI, BAILLIE, LAENNEC, and CRUVEILHIER worked, by the study of the minuter changes wrought by disease. No less remarkable was the Address in Surgery by Mr. SAVORY. A brilliant piece of rhetoric, it so captivated his audience that many doubtless were, at the time, convinced against their will. Removed from the spell of the orator's flowing language and persuasive pleading, they may on reflection be pardoned for not going so far as he in some of his criticisms, and they may even be emboldened to ask whether the principles inculcated in the lecture would have been so closely followed in practice had the doctrine of "antisepticism" never been promulgated. But as we deal with this address elsewhere we need not further discuss it here. Dr. ANDREW FERGUS, in his Address on Public Health, did not deal in controversial matters to so great an extent. He usefully reviewed the progress of preventive medicine, and argued forcibly against the prevalent method of the water-carriage of sewage, giving some striking illustrations of the baneful effects of this system, to the abandonment of which he hopefully looks forward.

It would be difficult to adequately survey the work performed at the various sections of the Association during the week. By the creation of special sections on Dermatology, Otology, and Ophthalmology, the work of the sections of Medicine and Surgery should have been lightened. But there was the usual superabundance of material, especially in the former of these two departments, where the number of papers taken as read exceeded those actually delivered, if the special subjects for discussion be excluded. No fewer than three subjects were so set apart in the Medicine section. This appears to have been too ambitious a programme, and one which tended to limit the free debate of the subjects in question. From the experience gained at this meeting it may be hoped that the executive will see fit to institute some further changes in the manner in which these debates are instituted. One such improvement might be made by having previously published the exact lines of discussion—say the heads of the paper contributed by the opener of the debate. This or some similar plan which might suggest itself would facilitate the aim in view. One of the best discussions was that on the contamination of drinking-water, in the Public Health section; but in some of the sections the debates wanted in energy and spirit. Many excellent papers were read, and, of course, also some which hardly deserved that qualification; but it would be invidious to select any for particular commendation here. It would, however, be wrong to omit notice of the stirring and impassioned address delivered at the opening of the Medicine section by Dr. ANDREW CLARK. It partook of the character of a philippic—to sober minds somewhat too pessimistic,—which should have the effect of shaking the dry bones amongst us. We are, according to him, in a sorry plight at present. All is going wrong. Our system

of medical education is hampered and faulty, our code of therapeutics is sadly at fault—it is meagre and feeble, suffering from scepticism on the one hand and from rash and hasty generalisation on the other; whilst, to crown all, experimental inquiry is being trampled under foot by a band of "sickly-minded humanitarians." There was no small amount of truth in this outspoken and forcible address.

Enough has been said to justify the remark that the meeting was a successful one. But on the social side it was equally noteworthy. The admirably managed *soirées*, garden party, and concert spoke volumes for the organising power of the Cork people. Of the concert, indeed, praises are especially loud; and it is pleasant to recall that many years ago, before Queen's College existed, THACKERAY noted the love of music prevalent in this city of the south. The proximity of the city to many of the most favoured spots in Ireland caused the excursions at the close of the week to be much sought after. In conclusion, much credit should be given to the Reception Committee, and especially to Dr. MACNAUGHTON JONES, for the indefatigable exertions put forth to render the meeting of the Association pleasant and memorable to those who availed themselves of it.

MORE than ten years ago an Act was passed that had for its main object the annihilation or, at all events, the diminution, of scurvy in the British Mercantile Marine. It was called popularly at the time the Duke of RICHMOND'S Act, because his Grace was then the President of the Board of Trade. The Bill emanated from "the Lords," and, when it became an Act, brought forth very good fruits. It assured—or did, at all events, for some few years undoubtedly assure—the quality of all lime-juice and lemon-juice taken to sea for the use of ships' crews, it doubled the quantity required by law to be administered every day as an antiscorbutic, and it provided specially for the exoneration of all shipmasters who gave the juice to their men, but found that they declined to drink it. For some time subsequent to January, 1868 (the date on which the Act became law), all things went well. It was found that scurvy decreased rapidly in our mercantile marine, insomuch that the admissions to the hospital-ship *Dreadnought* on account of the disease showed an annual diminution of 60 per cent., and there is little doubt that this remarkable change was in a great measure due to the successful working of the Duke of RICHMOND'S Act. But about three years ago it became evident that scurvy was on the increase among sailors, and specially among those in small vessels trading to the West Coast of Africa, the West Indies, Aden, and the Persian Gulf. The Board of Trade still keep up a system of official inquiries, though, as we have often remarked, these inquiries are almost invariably held too late—i. e., when the crews are paid off and the chief witnesses cannot be found. And, again, the official inspectors, aware that all lime- and lemon-juice used on board-ship for antiscorbutic purposes is now officially examined and afterwards mixed under Customs' inspection, do not (or, at all events, did not) think of subjecting it to any sort of analysis as heretofore. But the Board of Trade have very properly from time to time published in abstract the results of these official inquiries, and the last Parliamentary paper on the subject, that appeared some three weeks ago, is now before us. The statistics are extremely unsatisfactory, but, with the knowledge of which we have lately become possessed, are by no means surprising. A large proportion of those cases of scurvy that have occurred since 1876, and have been the subject of official inquiries, are, according to the opinion of the Board's inspectors, due to the "*inferior* QUALITY *of the lime-juice issued.*" But why *inferior*, if examined, mixed, and sealed under imperial supervision? The reading of the Act of 1868 as to antiscorbutics is so very concise and categorical that the Board of Trade, as the representative of the Government and the Customs, is made distinctly responsible as to the quality of the juice shipped (though unfortunately nothing is said as to the quantity required except that it shall be sufficient, or words to that effect). Having had suspicions, some two years since, that the system of examination was faulty, we have been at some pains to inquire into the matter, and the following facts are elucidated. The Board in the beginning of 1868 appointed one chief inspector to inaugurate the working of the Act, and the Duke of RICHMOND gave him a permanent appointment in London, and made him responsible also for the proper working of the Act at the chief outports, as Liverpool, Glasgow, Hull, Sunderland, and some three or four other places, where also residential analysts were appointed. The business of these officers was not only to examine all samples of lime- and lemon-juice submitted to them, but also to see generally that the contents of the casks from which these samples were taken were properly mixed, bottled, &c.—to be sure, in fact, that the bulk of the juice sent into Customs bond was "up to the sample." This plan, of course, was practical, sensible, and simple enough, and bade fair to work well. But inspectors' salaries began to figure as an appreciable item in the Board of Trade estimates. We may imagine that towards the approach of the session of 1868–9 the Financial Secretary of the Board anticipated his interview with the Treasury with fear and trembling, and invoked economy at the expense of efficiency, and the Duke's Act seems to have been made a scapegoat. The Analytical Department of the Inland Revenue was instructed to receive samples from the producers of lime-juice and lemon-juice, to examine them, to pass or reject them, and to report to the Board of Trade the results. And this plan, as we are informed, is carried out up to the present time. Can it be wondered at that in many cases the juice is found (or would, if examined, be found) *not* "up to sample"? A sample bottle of lime- or lemon-juice is in each case sent to Somerset House for analysis, purporting to be a fair sample of the contents of a cask, or of several casks, of the same fluid recently landed from the West Indies, or from Sicily, or any other place from which such articles are exported. But what kind of surety has the Inland Revenue, the Board of Trade, the Customs, the shipowner, the shipmaster, or, lastly, the person most directly concerned—i.e., the sailor—that the "stuff" given out at sea, "mixed and sweetened," is of the same quality as that examined by Mr. JAMES BELL and his staff at Somerset House? Is the cask even shaken at the time, or the temperature of the liquid taken?—two very important items. We believe,

from much information that has recently reached us, that the process of sampling is performed in the loosest manner possible, and that in one at least of the largest outports of the kingdom some of the vendors of lime- and lemon-juice make it a boast that they can evade the Government regulations without the smallest trouble, and send into the market juice that, if examined subsequent to the process of mixing and bottling, would be found notoriously below the Board of Trade standard, though stamped with the Customs' seal and bottled in the kind of phials ordered by the Act. We are loth to believe that these facts (and as such they may safely be recorded) can have reached the ears of the authorities at Whitehall, and we have hitherto hesitated to publish them, expecting that the Board of Trade would long ere this have had their eyes and ears opened to the circumstances briefly detailed above. But, inasmuch as the last Parliamentary paper on the subject in question seems to condemn the system, it is a duty to the public to show how this cheeseparing policy has worked in this as in all other cases. The evil is patent, and the remedy is equally plain. Lord SANDON should, with the aid of the Lord President, put an end to the misguided economy that now obtains, and make the Act, as it bade fair to be at its inauguration, a continued and complete success. If the Duke were aware of the existing state of things, we are sure that he would instigate his colleague (fortunately also a member of the Cabinet) to place the inspectorial staff on its old footing, and so make scurvy an unknown quantity in the merchant service as it has long been in the Royal Navy.

THE Address in Surgery delivered at the recent meeting of the British Medical Association came as a disagreeable surprise to the advocates of the antiseptic system of surgery. Four years ago, when the Association met in Edinburgh, Mr. LISTER, then surgeon to the Royal Infirmary in that city, impressed many steady-going practitioners by his bold and brilliant demonstrations of his method of dressing. By the exhibition of cases under his own care or that of his colleagues, and by appeals to startling operations performed in the fullest confidence of their ultimate success, Mr. LISTER in a few days gained more converts to the faith of his doctrines than many long years of teaching, writing, and beseeching had been able to secure. It was no secret that many who went to scoff came away convinced, antagonists were turned into champions, and many who obstinately still professed unbelief inwardly resolved to give the Listerian plan an impartial trial, with what results the medical journals, the discussions at the Medical Societies during the last two or three years, and surgical literature generally, sufficiently show. Statistical tables have been printed, cases have been recorded, and important conclusions have been deduced, all to the honour and glory of "Antisepticism." The system has grown and spread, and under its protection timid surgeons have shown a boldness which the bravest a few years ago scarcely dreamed of. Rightly or wrongly, the success which has attended much of this practice has been ascribed to the particular mode of performing the operations and dressing the wounds; in a word, Listerianism has been accepted by a very large section of surgical practitioners as synonymous with scientific surgery. Much of the opposition that the method had at first to encounter has collapsed when confronted by alleged results, and opposition has latterly been compelled to intrench itself behind a barrier of technical objections, and with bated breath impugn the principles upon which the method is based. Here and there, at long intervals, a dissentient voice may have been feebly heard, but only for a moment. When Mr. SAMPSON GAMGEE, two or three years ago, published his book on the treatment of wounds, a feeling of incredulity and astonishment seized many of the young enthusiasts of the antiseptic system when they were assured that the most serious injuries and extensive and dangerous wounds had been cured by the simplest means, without the employment of either carbolic-acid spray, protective, or gauze. Similar testimony from others was either ignored or laughed to scorn. But Nemesis has come. Mr. SAVORY, from an exalted and responsible position, has arraigned both the principles and practice of the Listerian method. More than this, he has not hesitated to declare that in his own practice and in that of his colleagues at St. Bartholomew's Hospital, "the best results have been achieved by the simplest means." He even affirms that "from observation of the method (LISTER'S) in cases in my own hands or under the care of my colleagues, I am impressed with the conviction that, as a rule, wounds heal more satisfactorily, more directly and quickly, under simpler plans." Such statements at such a time are weighty and arrest attention. What is the evidence on which Mr. SAVORY relies to support these tremendous charges?

At the beginning of his address he defined what he meant by the term "blood-poisoning," which he used in the comprehensive sense, to express "the sum of the effects produced by the introduction of matter, changed by the action of septic poison, into the blood." By "septic poison" he understands matter capable of producing or promoting putrefaction. The term "blood-poisoning" therefore covers not only the affections called pyæmia, septicæmia, ichorrhæmia, but also "erysipelas, certain forms of erythema, boils often, and carbuncles, and some other affections more vague and transient." Wide as this definition is, it will not on examination be found to be too wide. In surgical practice, especially that of hospitals, much might be said in favour of this opinion. Mr. SAVORY holds that "they differ only in degree—a degree probably determined chiefly by the intensity of the poison which operates," there being no essential difference in the nature of the poison itself. "The cause, then, of blood-poisoning is," he says, "the introduction of putrid matter into the blood." Putrid matter may bathe the surface of wounds, collections of "the foulest fluid, in a state of most active putrefaction," large enough and poisonous enough to destroy a host of persons if passed into the blood, may be pent up in a closed cavity under considerable pressure, for a long period, without any visible disturbance of the general health. It is obvious, then, that contact of putrefying fluids with raw surfaces and wounds is not sufficient to induce blood-poisoning. "They must be transmitted to the blood." This fact the believers in the prevalence of malignant germs throughout the air ignore. If Mr. LISTER and his disciples were correct, if the germ theory in its past or present state contained the truth, the whole truth, and nothing but the truth, what

possible explanation, asks Mr. SAVORY, is to be given of that which is witnessed daily and hourly—the kindly repair of exposed wounds? If the allegations of the germ-theorists of Mr. LISTER'S school were wholly true, the past records of surgery are surely false, and the practice of those who do not adopt Mr. LISTER'S precautions, either to exclude germs or to render them innocuous, is both melancholy and vicious. Happily there is superabundant evidence to the contrary. The testimony of many of the best surgeons of this age declares it is not so, and the statistics of St. Bartholomew's, which Mr. SAVORY introduced into his address, also plainly prove it. What are the results which Mr. SAVORY and his colleagues at St. Bartholomew's have obtained by a simple mode of dressing? They are as follows:—"In 1876 the absolute number of deaths from pyæmia after operations was 2, which is at the rate of ·49 per cent.; or including erysipelas in the common term of blood-poisoning, they were 5, at the rate of 1·24 per cent. In 1877 the number of deaths from pyæmia was 4, at the rate of ·95 per cent.; or including erysipelas, they were 6, at the rate of 1·43 per cent. In 1878 the deaths from pyæmia were 4, at the rate of ·96 per cent.; with erysipelas, 7, at the rate of 1·68 per cent." In other words, "during three years there was a total of 18 deaths from blood-poisoning after 1235 operations, and this is at the rate of 1·44 per cent." When we remember that all these operations were what are called major operations, we must allow that such results, though confessedly not perfect, are at least enviable. If the Listerians can show better results than these, they are unjust to themselves, and unfaithful to the doctrine they profess, if they any longer withhold the statistical results of their practice. Those who do not or cannot accept Listerianism have a right to demand the evidence on which the extraordinary claims of the antiseptic system is based. The burden of proof lies with those who impugn the old-established principles of surgery, and resort to special appliances and contrivances to obviate "ideal" evils, and to secure "ideal" good.

Mr. SAVORY alleges that the Listerian plan of dressing does not afford the protection it pretends to afford, that it conceals the wound from proper inspection, that it postpones and prolongs repair, and is moreover irritating both locally and constitutionally. But graver evil may, according to the same critic, attend its adoption. "It is preferable to a pestilential atmosphere"; and if operations were compulsory in such an atmosphere, probably LISTER'S mode of dressing might be found to be as safe as any other. But the surgeon's duty, under ordinary circumstances, is not to find what are the most dangerous sanitary conditions under which he dare operate; it is rather to discover the causes of the pestilence and banish them as far as possible from his field of action. The desiderata to be secured are, a pure air, healthy conditions, and strict cleanliness generally. And here we may speak of a kind of antiseptic surgery which it is too common to forget or despise—the antiseptics of cleanliness. Mr. SAVORY denounced the use of the term "antiseptic" in surgical parlance as superfluous. All surgery ought to be antiseptic; if it is not, it is unwholesome. Scrupulous cleanliness, in both its common and surgical sense—meaning thereby the prevention, or removal, or destruction of all matter which may prove poisonous—is, or ought to be, coterminous with the range of antiseptic surgery. If special chemical agents are to be trusted to, and the established precautions of hygiene ignored, evil will sooner or later overtake us. Without these, those are unsafe; with these, they are, it is contended, unnecessary.

It must not be imagined that either Mr. SAVORY or ourselves are less anxious than Mr. LISTER or the most enthusiastic of his disciples for the advancement of the art of surgery, or the welfare and safety of the public. Far otherwise. Mr. LISTER has done an important and lasting service to the cause of humanity and surgery by his unwearied attempts to eradicate septic diseases from surgical practice, and to make operations effectual and safe. To scrutinise the accuracy of the principles that guide his practice, or to dispute the indispensable necessity of all the details thereof, is the privilege and duty of every practical surgeon. We may allow that "antiseptic surgery" has been an important phase in the evolution of sound and scientific knowledge of the nature of septic diseases, but deny that it is the culmination. Let us conclude in the words of Mr. SAVORY: "Is it rash to affirm that the future practice of surgery will be most successful when it is carried on, not where antiseptics are most largely used, but under conditions least in need of antiseptics?"

THE conditions and surroundings of life go far to determine its character. The race, the nation, the family, the individual, are distinctly amenable to the influences of association, example, and what is comprehended under the term "circumstances." It is mainly through these approaches the work of culture is carried on. There is, therefore, nothing unreasonable in the care bestowed by a Government on the ordering of domestic affairs in such fashion as may be supposed to conduce to public morality. There is no solid argument, and not much sense, in the objection so often urged against "paternal legislation," that "it is impossible to make the people moral by Act of Parliament." It may be impracticable to infuse virtuous principles into a community by prohibitory enactments. For example, a statute making it penal to drink intoxicating beverages would be more likely to call into existence a vicious ingenuity in evading the law than to eradicate the love of stimulants. Nevertheless, it cannot be doubted that, except in so far as a sense of irritation under oppression might be transmitted from parent to child, and the contingent effects of forcibly suppressing a strongly developed longing would be more mischievous to character than reasonable liberty of indulgence, the next and succeeding generations would gain by the absence of those sinister influences which both the experience and the spectacle of drunkenness exert on the mind of youth, and even of adult age. We can conceive of a condition of public morals in which it would not only be justifiable, but incumbent upon the authority responsible for the welfare of the nation to make laws, seemingly arbitrary, and purely educational, in the interests of public morality.

It is not, therefore, on the ground laid down by Sir WM. HARCOURT when he inveighed against "grandmotherly legislation," that we object to the line taken under the patronage and with the approval of Mr. Secretary CROSS in regard to the exclusion of representatives of the

Press from private executions. The object which it is sought to compass is excellent in itself, but the wrong way has been taken in seeking to reach it. The policy adopted is perverse, and must needs lead to the creation of new evils and difficulties as great as those it has been designed to obviate. The aim has been to prevent the appearance in newspapers circulating largely among the people of those graphic accounts of proceedings at the scaffold which the young especially so much delight in reading, and the morbid or vicious gloat over. It was assuredly right and wise to do something for the suppression of these reports, which were effectually maintaining the morbid appetite public executions were abandoned to extinguish; but that which has been done is not judicious—it creates a mystery which feeds the imagination with a new and most stimulating diet, and at the same time awakens misgivings in minds that had previously been at ease on a subject in which they had no desire to obtrude. The Home Secretary should understand, if he does not perceive, the fact, that the respectable and non-prurient public are now stirred with grave anxieties as to the conduct of public executions, because they have been taken out of the category of judicial acts done openly, so far as public opinion was concerned, and placed on the unsatisfactory level of secret official stranglings in prison; the only particular in which the modern execution differs from that which used to take place in darker times and places being that a public notification of the grim deed is now vouchsafed by the hoisting of a black flag and the holding of a formal if not a farcical inquest. We venture to think the proceeding is so retrograde and serious in its character that it must needs be abandoned, but in making this assertion we are anxious it should be understood that the object it was desired to compass—namely, the suppression of exciting newspaper reports—was not only desirable, but urgent.

Our present purpose is to point out the need of some judiciously conceived and prudently executed measure for the suppression of reports of law proceedings which are seriously detrimental to the tone of public, social, and consequently of personal, morals. It is little short of a scandal that the columns of newspapers should be filled with the unsavoury details of wrong-doing, which, if it be investigated at all, should be dealt with *in camera*. Those who have the care of families will know how great the mischief done by these reports of sensational suits and trials actually is. The case to which attention has recently been directed is more than commonly injurious to public morals because it places obvious impropriety side by side with the professional promulgation of sacred truth, and exhibits a picture in which vice and virtue are brought perilously near to each other. The effect of such a presentation must needs be to weaken that respect for perfect consistency and high moral conduct which it is the interest of every well-constituted people to maintain. There can be no room to question that the ultimate effect of the inquiry to which we allude *must* be prejudicial. Can nothing be done to prevent the publication of these corrupt and poisonous elements of the "news" of the day? Surely it would suffice that they should be simply chronicled in the technical phraseology of the law, instead of being served up like a highly spiced dish to whet the appetite of the reading community for sensation and immorality!

In making this appeal on behalf of morality, we are not wandering out of our province of medical journalists, or assuming the functions of teachers and preachers of righteousness, still less are we the promulgators of any special faith or code of morality. It is the health element in morals with which we are immediately interested, and that has relations fully as clear and well defined with the mind as with the body.

We are not prepared to accept the hypothesis that all crime is the outcome or expression of disease, but it is manifest that an element of weakness or disturbance, tending to, if not actually constituting, disease underlies nearly all the commonly recognised forms of vice, and disobedience to the reign and order of the moral law. And this weakness and disturbance are induced, or further debilitated and disturbed, by whatever renders evil a familiar object to the mind, and tends to abate the sense of revulsion which the spectacle of wrong-doing ought always to excite. Moral health is moral purity and goodness; not in any mere sentimental sense, but as the simple embodiment of integrity. It is of the highest moment to perceive this fact, and give it expression in our policy. It is not reasonable, from a psychological point of view, to feed the minds of the people on the garbage of the criminal and divorce courts, and then ask and expect them to lead decent and pure lives. The material food by which the body is nourished broadly determines its character and capacities. The aliment of the mind plays a not less important part in its development. "To the pure all things are pure," but the purity which protects the mind from evil thought and susceptibility to corruption is itself the product of good and pure training. Everything moves in a circle. If we desire that a tree shall bear good fruit, we must see that the soil from which it derives its supplies of nutriment is pure, and the surroundings favourable to a healthy and vigorous growth. No honest man in his senses would think of rearing stock or cultivating land on principles directly opposed to nature. How comes it to pass that those who have a responsible official interest in the promotion of moral health among the people utterly disregard the health element in morals, and leave the mental appetite of the community to be debased by pestilent food like that which is served out by the newspapers from that charnel-house of moral reputation and sink of moral iniquity, the Divorce Court? Let the laws of natural growth be applied to the culture of mind as they are now applied to that of the body. The mental hygiene of the brain is not less important than the physical hygiene of the organism generally.

IF there is one thing for which it is the imperative duty of Government to make adequate provision, it is the preservation of the lives and health of our soldiers from the effects of injuries inflicted by their enemies in the field, and of the diseases engendered by the climates in which they are called to serve. But what is the position of the Government at the present time on this important subject? Thanks to the mismanagement of the military authorities, the Army Medical Department, on whose efficiency the

lives and health of our soldiers so much depend, has, for some time past, been in a condition which deters candidates from coming forward to fill the vacancies caused by death and retirement from age or ill-health. This condition of the service has been brought prominently to the notice of the Government by the responsible head of the Department, by the medical press, the profession generally, and the different medical corporations. It has been admitted to exist, in an alarming degree, by a departmental committee appointed by the War Minister, and a scheme has been drawn up to render the Department more efficient and popular, and to provide the necessary staff for the sanitary care and medical treatment of the soldiers. This scheme, the War Minister recently stated in the House, was forwarded by him to the Treasury for its approval of the financial arrangements recommended, and it has been pressed upon the attention of the Government by the Director-General, who is responsible for the working of the Department. An examination of candidates for the Medical Department of the Navy is now going on, one for the Indian Medical Service is advertised to be held on the 28th, but as yet nothing has been done to procure a supply of qualified candidates for the army. The Department is now about one-tenth below its proper and authorised numbers. Medical officers are unable to obtain the leave of absence to which by the rules and custom of the service they are entitled, and they are also called upon to do a much greater amount of work than is usual, or, indeed, than they can continue to do efficiently for any length of time. This state of things is very discreditable; and with whom does the blame rest? If we are correctly informed, the Right Honourable the Chancellor of the Exchequer, who last week moved so eloquently a vote of thanks to the army, is responsible for the delay. However much blame may have attached to Colonel STANLEY for procrastination and indecision in the matter, he has now freed himself from the responsibility by submitting for the approval of the Treasury a Warrant which, so far as its provisions have transpired, would be likely to bring forward a supply of candidates. It is now merely a question of money, and for this Sir STAFFORD NORTHCOTE is leaving those gallant men, whose services he so highly lauded, without adequate assistance in the hour of danger in the field, without efficient sanitary supervision in their cantonments, and without the necessary medical attendance when prostrated by disease induced by unhealthy climates. This may be economy, but it is economy which in the long run will cost the country dear, and which cannot fail to increase the feeling of dislike on the part of the people generally to enlist in a service in which, unless prompt measures are taken, they will be neglected when prostrated by disease, and deprived of that skilled advice which is afforded even to the paupers in our workhouses. Surely the gallant conduct of our soldiers merits some more practical acknowledgment than honeyed words, and Sir STAFFORD NORTHCOTE is bound to prove the sincerity of his gratitude to them by adopting such measures as will ensure their being properly cared for in the hour of danger and in the helplessness of sickness.

DR. C. HILTON FAGGE has been appointed Examiner in Medicine in the University of London, in the place of the late Dr. Murchison.

Annotations.

"Ne quid nimis."

THE CHOLERA AMONG THE TROOPS IN INDIA AND AFGHANISTAN.

WE regret to find, by our correspondent's letters, dated June 24th, and received by the last mail from India, that cholera is still making sad havoc amongst the troops in Afghanistan and the Punjab. In Kandahar and the neighbourhood the disease has increased with much virulence. On June 24th thirteen cases with two deaths occurred amongst the native followers in the fort, and towards the end of the month dropping cases of cholera were reported in most of the native regiments. Up to July 17th—our latest date—the heavy total of 117 cases had been reached, of which 48 were fatal, a high percentage of mortality; these were amongst the native troops and followers. So far the European troops have not suffered to any great extent, only 7 cases, 3 fatal, being noted. The regiments that have suffered most severely are the Ghoorkas and 19th Bengal Cavalry—the Ghoorkas had 10 deaths in one day in July; both regiments have, however, been moved into camp, and will, it is hoped, shake off the disease. With the exception of cholera the general health of the Kandahar force is good, the sanitary condition of the fort and cantonment satisfactory, and the weather cooler, the thermometer in the shade registering 94°.

Turning to the Khyber, we find, early in July, cholera hanging about Lundi Kotal, the 2-12th and 1-17th Regiments returning a few fatal cases. Captain R. Baynes Reed, of the 12th, fell a victim on the 25th June. The Lundi Kotal garrison was suffering also from malarial fever and dysentery, the field hospital having over 150 patients, the hardships and exposure entailed by the return march from Jellalabad telling severely on all ranks. Major Dyer, R.A., Captain Gamble, 17th Regiment, and Lieutenant Wettall, 14th Bengal Cavalry, have succumbed to climatic diseases.

At Peshawur the 25th Regiment was out in camp, cholera cases recurring every few days. The Horse Artillery and a field battery were also under canvas near the Cabul River on account of one or two cases. The heat in these camps is described as exceedingly trying, the thermometer in a double tent registering 120° in the daytime.

At Murree cholera of a severe type has appeared. Lieutenant E. H. Watson, of the 17th Regiment, was attacked on the 4th July, and expired in a few hours. The soldiers at the Convalescent Depôt have been moved into camp at Tapah, four miles from Murree, 15 cases, 10 fatal, having occurred. At Clifden, a suburb near Murree, 9 cases, 7 deaths, are reported; and at Kyragully the mule battery of Artillery has had 5 cases, with 3 deaths. In the Kurum Valley also cholera has stricken the villages near the Peiwar and Thull very severely, 8 and 10 fatal cases amongst the natives occurring daily.

From Lucknow we hear, too, of cholera, but, so far, not in a severe form. The Martinière College, however, had been closed, and the pupils dispersed, after two fatal cases.

SEASIDE HYGIENE.

IT is somewhat amusing to observe how the chief hotels at our most popular watering-places have, so to speak, "gone in" for hygienic specialities. In criticising the hygienic conditions of Ventnor, as one of the prettiest marine resorts, we alluded favourably to the sanitary arrangements of one of the hotels in that town. Since that date we observe that the hygienic reorganisation of all marine residences of the hotel, boarding, and lodging-house class has gone on almost *sans cesse*, and if people will take the trouble to look about hotels at which they are sojourning during the autumn

trip, they will find all sorts of strange pipes obtruding themselves here, there, and everywhere, not enhancing the beauty, but very much improving the sanitary condition of the buildings of which they are very unbecoming excrescences. For it is astonishing how very much the hygienic aspects of buildings of this class have until quite lately been neglected. We object, of course, on principle, to naming any special establishment where improvements of this kind have been, or are being, carried out. But we can assure managers, proprietors, and companies that money spent in works of this kind is now always directly remunerative, because such improvements are quickly discovered and readily appreciated. But people who have a fair amount of money to spend on excursions do not yet understand the importance of enjoying large sleeping rooms when they go away for their holiday. They, and of course their wives and children, are content to be relegated to the second, third, or fourth floor, with a court-yard or kitchen look-out, a window of garret size, a minimum allowance of water and towels, and other discomforts which it is not needful to mention. Why cannot it be understood that, as paterfamilias and his olive-branches spend most of their time in the open air, it is better to make the best rather than the worst room that in which the sleeping is to be done?

THE VICTORIA UNIVERSITY AND MEDICAL DEGREES.

THE draft charter of the new University has been submitted to the Lords of the Privy Council, and, as we intimated in our issue of the 2nd inst., contains no provision for conferring medical degrees; the Privy Council having declined to give the power of bestowing new medical qualifications to the new body, while the whole subject of licences to practise medicine and surgery remains in its present unsatisfactory and unsettled position. The new University will be able to grant degrees in all other subjects just as any of the older universities, and moreover there is to be no restriction as to sex. The Privy Council has been well-advised in withholding the right of granting medical degrees, and no exception can be taken to the reasons which are put forward as the grounds on which such a decision has been arrived at. The creation of new degrees in medicine and surgery, which would necessarily cause an increase in registrable qualifications, would be absolutely indefensible at the present moment, even if the claims of the Manchester school were infinitely greater than we can allow them to be. As a medical school, Manchester is in no way superior to the leading metropolitan and provincial schools, and, as an important element in a teaching institution, its medical department can urge no claims which could not be as appropriately urged on behalf of University or King's College. The faculties of arts, laws, science, and medicine, are as complete and as well organised at both of these colleges as they are at Owens College, and everything that can be said in favour of permitting the latter to confer degrees might with equal reason be brought forward by either of the other institutions. What would be thought if these colleges also were to agitate for being raised to the status of a university, and to ask for the power of granting degrees to their students? There cannot be two opinions as to how such a proposition, if it included medical degrees, would be received by our profession, and we fail to see how Owens College can expect to be treated in a different manner. The opposition to the power of granting degrees in medicine is by no means limited to the teachers of the Liverpool school, as is suggested by the authorities of Owens College, but, as the memorials against this scheme sufficiently attest, is shared by almost everyone who is concerned for the future of medical education. If the demand of the Manchester school were allowed, similar privileges would soon be sought by other colleges and medical schools, and, inconvenient and unnecessary as these requests might be deemed, they could not, with such a precedent, be logically or consistently refused.

VERDICT BY "HEADS OR TAILS."

UNDER this heading we last week directed serious attention to what is unpleasantly known as "the Jury Scandal." It seems that substantially we were well-informed as to what took place in the jury-room. The appeal to chance was not, indeed, made directly on the subject whether the prisoner should be returned guilty or acquitted; but, finding that their opinion was equally divided, the jurymen had recourse to the expedient of choosing a chairman by ballot, with the understanding that his opinion should rule the return. This, of course, amounted to tossing for a verdict. As we showed last week, it was a foregone conclusion that this proceeding had so vitiated the finding of the jury that the capital sentence based upon it could not be carried out. It is, however, needful to go farther and assert that the proceedings are bad in law. The Statute-book has not yet received an Act to legalise a verdict by a majority among twelve men. It was therefore impossible the return could stand. The statement that the verdict given was the verdict of "all" the jury is distinctly contradicted by the admission that opinions were equally balanced, and that the adoption of one of the two views was determined by the choosing of a chairman, who should be provided with an *ex officio* vote. The question we now raise is, of course, one for the lawyers; but common sense seems to point, as we have indicated, to the true conclusion that there has been no legal return. The *virtual* effect of what has been done we take to be equivalent to the withdrawing of a juryman in a civil cause, or the discharge of a jury in a criminal investigation.

THE LOW JULY DEATH-RATES.

JUDGED by the weekly returns from the twenty large towns, English mortality has been unprecedentedly low since the beginning of July. This has been, beyond question, mainly due to the exceptionally and unseasonably low temperature and abundant rains, which have almost entirely kept in check the fatality of summer diarrhœa, which usually exercises so strong an influence upon urban rates of mortality during July and August. The mean temperature during July did not exceed 58·1°, and was 3·5° below the average; the mean was considerably below the average on each day of the month except the last five. Indeed, it was by far the coldest July since 1860. Rain was measured on nineteen days of the month to the aggregate amount of 3·7 inches, which exceeded the average by 1·1. The month was also remarkable for its sunlessness. Only 99 hours of bright sunshine were registered during the month, against 177 and 164 in July of 1877 and 1878. It is not without interest to inquire in what way this unpleasant and unseasonable weather has affected the death-rate. The details published by the Registrar-General concerning the weekly mortality in the twenty towns are insufficient for the purpose of such an investigation. The metropolitan returns are, however, given in greater detail, and enable us to compare the mortality from different causes and at different ages during last July and in the July of 1878, when the temperature was somewhat above the average. During the six months ending last Saturday, the death-rate in London averaged only 17·7 per 1000, against 24·9 in the corresponding period of last year. Only 7357 deaths in London were registered in the past six weeks, against 10,250 in the corresponding period of 1878, equal to a decrease of 2873 deaths, or 28·2 per cent. Of these 2873 lives, the saving of which must be mainly attributed to the unseasonably low summer temperature, no less than 2282 were of infants under one year of

age, and 346 of children aged between one and five years. An examination of the causes of death shows that only 1276 deaths were referred last July to the seven principal zymotic diseases, against 3067 in the corresponding month of last year. This marked decline was mainly due to the fact that only 230 cases of fatal diarrhœa were recorded last July, instead of 1976 in July, 1878. The cool temperature of last July caused a marked decrease in the fatality of all infantile diseases besides diarrhœa. Diseases of the respiratory organs were somewhat more fatal last July; but the deaths from phthisis were less numerous. The deaths referred to heart diseases were almost identical in number. It may briefly be summarised that the effect of high summer temperature is mainly shown in the increased mortality of infants and children. Hence, the large number of lives now due to the cold and unseasonable July were almost exclusively of infants under one year of age, or aged between one and five years.

NEURECTOMY OF THE SPHENO-PALATINE GANGLION FOR THE RELIEF OF TIC-DOLOUREUX.

THE *New York Medical Journal* for June contains a very important paper by Fred. S. Dennis, M.D., Demonstrator of Anatomy in the Bellevue Hospital Medical College, on Neurotomy of the Superior Maxillary Branch of the Trigeminus, including Neurectomy of the Spheno-palatine Ganglion, for the Relief of Tic-douloureux. Such operations have not been of late very popular with us. But our American brethren have had a large experience on the subject, especially Dr. James Wood, of New York, who has been led to form a favourable opinion of the operation. He has operated four times, and in all cases, he considers, successfully. Of twenty-one cases in which the operation was performed on the superior maxillary nerve, more than half have been performed by American surgeons. The extirpation of Meckel's ganglion is insisted on by Dr. Dennis as necessary. He thinks this is shown to be so by the success of cases in which it has been done and by the return of pain in cases in which the nerve trunk was exsected without the destruction of the ganglion. We must refer our readers to Dr. Dennis's paper for the particulars of the twenty-one cases which he records. Of course pain may return in another branch of the nerve, and require another neurotomy. Or the disease may be central in its seat, and care must be taken in diagnosis to ascertain this beforehand. The account of the operation in one of Dr. Wood's cases is interesting, as also the account of another case, in which, after some years, the patient's death afforded opportunity for a careful examination of the parts at the seat of operation by Dr. Welch, Pathologist of the Bellevue Hospital Medical College.

THE NAVY.

OUR contemporary, the *United Service Gazette*, has, so to speak, rather taken the name of THE LANCET in vain, respecting the "proposed naval medical scheme," as the editor of that journal chooses to call it. We have no scheme to propound, and certainly never intimated an intention to enunciate one; our principle being, and having been for many months past, to wait and watch. We are not at all prepared to declare, or even to assume, that the retirement of the present Director-General will clear the air, or lead the way to any material or radical change for the better. It seems to us now, as always, that the First Lord must be prepared to face a reform that will cost money; for, whatever the change may be, it must necessarily be one entailing an increase in the Estimates. The plan suggested and condemned in the same breath by our contemporary is one of the most impracticable that has yet reached us, and of all others least likely to be successful. For medical men, like those of other professions, must all learn their rudiments in one school, and there can be no possible advantage in separating them at the outset from their compeers, either as to status or in any other particular. That much special work is required of both army and navy doctors no one pretends to deny; but this kind of work is or should be commenced after degrees and diplomas are acquired, and, as far as we can judge, no better school can be found for both services than Netley. Parkes and his colleagues worked their way through many difficulties, and at last succeeded in establishing an admirable school for the juniors of both services, that if properly utilised by those who go there, ought to render them fit for any service in any and every quarter of the globe. But the same thing is said of the navy as of the army. Neither service attracts the right sort of men, or indeed the requisite number of men. We are anxiously waiting for the final verdict as to future arrangements of the Army Medical Department, and but a short space of time will elapse before we shall be in a position to indicate pretty conclusively the line of action that will be taken by the Lords of the Admiralty with reference to the Medical Department of the sister service.

A CAUTION ABOUT SHOT IN GAME.

THIS being the season when game killed by shooting, and probably containing the pellets, is eaten, it may be worth while to caution those who consume the flesh of birds with avidity that the proportion of instances in which shot is found is probably small in comparison with the number of cases in which the pellets are unwittingly swallowed. It is a matter of speculation how much mischief a shot may do when passed into the intestines, but the fact that anomalous diseases have been set up by the presence of very small bodies which have become entangled in folds of the mucous membrane renders it desirable to put the public on their guard. Occasionally the most disastrous results have followed such small causes. We have in recollection the case of a physician who died, after prolonged and unexplained sufferings, from the impaction of a very small nail which had found its way into a pudding, and was inadvertently swallowed. A little care will avoid this contingency, but, remembering that the bird had been shot, some pains ought certainly to be taken to avoid swallowing the missile.

PUBLIC MORTUARIES.

IT is clearly necessary that public mortuaries and post-mortem rooms should be provided in populous districts, and the—not unnatural—objections raised by householders in the neighbourhood of proposed sites for these buildings must be overridden. Nevertheless, great care should be taken to ensure perfect safety, and we are not disposed to place any great reliance on such precautions as the use of disinfectants and screwing down coffins in the case of bodies of persons dying from infectious diseases, if the sites selected for dead-houses are unsuitable. Churchyards which have been closed are too often situated in the hearts of districts where infection would readily spread if once a disease were propagated. The Chancellor of the diocese of London has done wisely to intimate his intention of allowing the costs of parties opposing when a faculty for the erection of a parochial dead-house is sought. Dr. Tristram seems to be of opinion that closed churchyards are, *ceteris paribus*, presumably suitable sites for such office. Setting the sentimental aspect of the question on one side, we are not disposed to agree with him. Most of the parish yards which have been closed were not only too full of organic remains, but ill-placed, looking to the health of the population. We venture to suggest that the presumption lies the other way.

If the site was not suitable for the deposit of remains which would not again be disturbed, it is likely to be still worse adapted for a casual resting-place for the dead, and one where all that it is necessary to do in the interests of science and justice may be carried out with safety.

RECENT SUICIDES IN LONDON.

THE statistics of the Registrar-General show that there is a singular constancy in the proportion of suicides in England. It appears that the annual proportion was equal to 67 per million living in each of the quinquenniads ending 1864, 1869, and 1874; the extreme range in single years was from 62 to 73 per million during the sixteen years 1862–77. Although this general average is maintained throughout the country, there are both local and periodical variations in the proportions of recorded suicide, which can scarcely be solely attributed to the inevitable variations of small numbers, and which cannot be devoid of interest. During the three weeks ending last Saturday, no less than 35 deaths from suicide were registered in London, whereas the corrected average number in the corresponding period of the last ten years was but sixteen. In ten cases the suicide was by hanging, in eight by drowning, in seven by cut-throat, in four by poison, in two by gunshot, and in the remaining four by other or not stated means. One of the suicides was aged less than twenty years, thirteen between twenty and forty, fourteen between forty and sixty, and seven between sixty and eighty. The proportion of suicides in London considerably exceeded the average during the three months ending June last, but by far the largest proportional excess occurred during the three weeks ending last Saturday.

DIPHTHERIA.

THE Local Government Board has issued another report of a medical inquiry concerning a local outbreak of fatal diphtheria, the reporter in this case being Dr. Cory, of St. Thomas's Hospital. The place of outbreak was Cranfield and neighbouring villages, in the Ampthill district, Bedfordshire. Here, in 1878 and the earlier months of 1879, twenty-seven cases of diphtheria occurred, of which thirteen were fatal. The information of this outbreak appears to have been received at too late a date to admit of a satisfactory elucidation of its origin. The general sanitary condition of the infected locality was that customarily found in villages in the district, and was deficient in every respect. The outbreak differed in one particular from many other outbreaks which have been investigated, inasmuch as school attendance did not appear to have exerted any manifest influence in the dissemination of the disease. Of the twenty-seven cases which occurred five were under three years old; eighteen were between three and fifteen; and four older than fifteen.

WATER-SUPPLY.

THE intimation given by Mr. Secretary Cross on Wednesday, the 13th inst., with regard to the question of water-supply, is reassuring, thankful as we are learning to be for any ministerial attention to domestic interests. There is to be a Government inquiry, and if it be recommended to make the provision of pure water a public duty, the business of the companies will be "taken over" on equal, but not exorbitant, terms.

THE TROOPS IN ZULULAND.

WE learn from an occasional correspondent at Point Durnford that "the chief sickness among British troops is typhoid fever—and some say bilious remittent fever of a typhoid character. The further we proceed up the country towards the equator the more frequent are the cases of icterus; the patients become perfectly yellow, and remain so for several days, with thirst and loss of appetite, coffee-coloured urine, clay-coloured stools, tenderness over liver, nausea, sometimes vomiting, and then slowly recover colour and health again. Although the water at Point Durnford is sweet, cool, and pleasant, cases of diarrhœa and dysentery are occurring."

SLAUGHTER-HOUSES.

A PARLIAMENTARY return has been published by the House of Commons, moved for by Mr. Whitwell, relative to public slaughter-houses, and the adoption of bye-laws regarding slaughter-houses, in urban sanitary districts. From this report it would appear that there are (1878–1879) 954 urban sanitary districts in England and Wales, and that of these districts 63 have had public slaughter-houses provided by the local authorities, that in 689 bye-laws have been adopted for the regulation of slaughter-houses, in 50 bye-laws were under consideration at the date of the return (July 15th, 1879), and that 205 were without public slaughter-houses, and had given no indication of a desire to place slaughter-houses under regulation.

THE THAMES VALLEY MAIN SEWERAGE SCHEME.

THIS elaborate and once hopeful scheme seems likely to go to the wall, in spite of all the time, money, and energy that have lately been expended upon it. In point of fact, Colonel Haywood's plan is impracticable, costly, and meets with enemies in all directions. The, board constructed out of the various authorities interested, have spent about £1000 in so-called preliminary expenses, on account of which they have already been surcharged by the Government auditor, and everyone seems disgusted with the entire business.

THE ARCTIC EXPEDITION.

WE have received a communication from the honorary secretary of the Westminster Permissive Bill Association, urging us to "bring the question of alcoholic stimulants to the attention of our readers," because "the lamentable failure of the last Arctic Expedition" was due to "the rum ration." If the Secretary will read the verdict of the Admiralty Committee, as recorded in the Blue-book on the subject, he will find that the non-administration of lime-juice, and *not* the "rum ration" was, by an overwhelming consensus of opinion, considered to be the cause of the scurvy outbreak.

THE death is announced of Dr. William Henry Young, F.R.C.S. at the advanced age of ninety-three. He was formerly surgeon in the 28th Regiment of Foot, and saw considerable service in the Peninsular and Waterloo campaigns. He was one of the oldest Fellows of the Royal College of Surgeons of England, and nearly the last of the survivors who served on the medical staff at Waterloo.

ON August 8th, 1879, at the Westminster Hospital, Mr. Macnamara amputated at the right hip-joint for old morbus coxæ and hæmorrhage from the profunda artery. The hæmorrhage was controlled by Davy's lever, and although the operation was performed with the utmost deliberation, only one ounce of blood was lost. The boy, aged six, is progressing favourably.

WE are sorry to learn that two medical officers of the Madras Service have fallen victims to the epidemic of cholera now so severe in British Burmah, Dr. M. E. Murphy and Surgeon C. Lloyd

THE BRITISH MEDICAL ASSOCIATION.

(From our Correspondent.)

Cork, Wednesday, August 6th.

THE business of the second general meeting, held this morning, commenced with the nomination of the Committee of Council, the names being read out by Dr. Alfred Carpenter, President of Council. The same gentleman also announced that an invitation had been accepted by the Council on behalf of the Association from Cambridge for the Association to hold its next meeting there, with Professor Humphry as President, and he accordingly proposed a resolution to that effect. The motion was seconded by Mr. Husband, and carried by acclamation.

Dr. ALFRED HUDSON, Regius Professor of Physic in the University of Dublin, than delivered the Address in Medicine. He said that he proposed to touch briefly upon the history of medicine in its several epochs, and especially upon that revolutionary period in medical knowledge which occurred in his student days, when nosology was replaced by pathology. He held that the analogy which Bacon had drawn between the growth and development of a science and that of the human body was an accurate one, additions to knowledge being made, and previous acquisitions cast off as soon as they had served their purpose. Hippocrates, Morgagni, and Laennec typified three epochs in medicine: the first that of aphorism, the second of observation, the third of the application of pathological facts to bedside observation. The aphorisms of Hippocrates are models in their way, and for centuries dominated medical thought. They were the outcome of practical experience, and received their highest development in the writings of Sydenham. The influence of Sydenham was wide and great; it can be traced in the writings of his followers, as Huxham, Grant, &c., who in their turn were succeeded by Fothergill, Currie, and others, all of whom made solid contributions to knowledge. The systems of Cullen, Brown, and Darwin are now forgotten. Morgagni gave a great impulse to medical science by his minute observation of diseased structures. He was the first to examine all organs of the body irrespective of that organ which was the predominant part diseased, and his contemporaries followed up his work. Then came Laennec to substitute a living for a dead pathology, and to anticipate by observation during life the disclosures of the post-mortem theatre. Dr. Stokes has said that auscultation was one of the greatest benefits conferred on medicine. It appeared opportunely, when Richat and Haller had propounded their views, and when Avenbrugger's work on percussion had just been brought into notice by Corvisart. Laennec was thus fortunate in his immediate predecessors. The time had come, and he was the man for the new era. It was fortunate for medical science also that he did not live at a later period; for his active and inquiring mind might have been diverted from the subject he had in hand to minute research in the post-mortem room. After a brief sketch of the life of Laennec and of his discovery of auscultation, the lecturer proceeded to say that at first this discovery did not excite much interest. The stethoscope was sneered at by some; the "new light was too strong for older eyes"; and had not Laennec lived to enforce his doctrines himself it might not have gained a firmer hold on men than had Avenbrugger's work on percussion. From the publication of his work until his death there were only ten years, but they sufficed to firmly establish his doctrines. "Is he," asked Dr. Hudson, "still appreciated as he deserves to be?" He doubted if he were, but he pointed to the fact that only this year the Faculty of Medicine of Paris have issued a new edition of Laennec's famous work at a moderate price. Dr. Hudson then proceeded to analyse the work of Laennec. He did this in a masterly manner, and especially pointed out that his views on the subject of phthisis are now again becoming more and more generally received, both Charcot and Rindfleisch stating doctrines in entire accordance with Laennec's views. His chapter on softening of the heart in fevers is admirable; and he discriminated also between two forms of fatty degeneration of the heart. Dr. Hudson concluded by saying that the great influence of Laennec's work was to advance our powers of diagnosis, to increase our means of recognising changes necessary for indications of treatment, and to learn the early signs of phthisis. It was also of the greatest value in training the mind to observe, and it could not be said now since the days of Laennec that medical science had not advanced since the time of Hippocrates. A happy parallel between the lives of Laennec and our own Murchison terminated an address which it may truly be said was in every way worthy of the occasion. Thoughtful, scholarly, yet simple and attractive, it was listened to with great attention; and all present felt on its conclusion that the high eulogium passed on its author by Dr. Andrew Clarke, in proposing a vote of thanks to Dr. Hudson, was fully justified. Dr. Ringrose Atkins seconded the motion, which was carried by acclamation. At the close of the meeting Dr. Gallard, of Paris, made some complimentary remarks, and presented his writings to the Association, which were, by permission, deposited in the Queen's College.

In the afternoon the sections opened their proceedings.

In the section of Medicine the President, Dr. ANDREW CLARK, delivered a brief but eloquent address, dealing with the three topics—medical education, the present state of therapeutics, and experimental inquiry. He contended that medical education was at present in a gravely unsatisfactory condition, requiring immediate and earnest attention, and he pointed out where, in his opinion, the defects lay—due to extension of subjects to be learnt without extension of time in which to acquire them, to the introduction of matter unnecessary for the practitioner, to faults in the mode of teaching, and the inadequacy of examinations to test the thoroughness of education. On the second head, that of therapeutics, he held that the profession was much behind what might reasonably be expected, the lack of knowledge upon the action of drugs and the prevalent scepticism as to the efficacy of remedies largely accounting for this; and he pointed out how with changed and changing conditions diseases must have altered in type and character, and their treatment must consequently be changed; whilst he expressed his belief that want of appreciation of the individuality of the patient further accounted for much that is false in therapeutics, and sternly criticised the practice of the introduction of new methods upon scanty and ill-grounded observation. On the subject of experimental inquiry he was equally outspoken, for he said that it was in this direction that we are to look for further additions to knowledge of the nature and treatment of disease; and he concluded an address remarkable for its force, earnestness, and candour, with an eloquent denunciation of the action of those who were striving their utmost to stifle inquiry in this direction.

A discussion upon the Value of Mountain Air in the Treatment of Phthisis was opened by Dr. HENRY BENNET. He pointed out that the views held in the first part of the century as to a warm and moist air being essential for phthisical patients were now admitted to be erroneous; but he contended that the good derived from dwelling in altitudes was to be ascribed to the fact that patients were compelled to live in the open air, and was not due to any curative influence of elevation. He instanced Quito in Ecuador as a health resort, not of great altitude, but where the patients live in the open air and do very well.—Dr. Clifford Allbutt said that he had always advised phthisical patients of sedentary habits to change their occupation for outdoor pursuits, and with great benefit. But he believed that there was a specific efficacy in mountain air, which he ascribed to its purity and antiseptic influence—preventing the progress of ulcerative processes in the lungs. He did not think that the subjects of phthisis were of low vitality; the contrary was often markedly the case; but he believed they suffered from blood-poisoning due to the foul products of ulcerating cavities. Of all mountain resorts Davos was the best; the air was still, and the day and night temperature uniform. He characterised as absurd the statement that hæmoptysis was favoured by residence in an elevated district. The reverse was the case.—Dr. Jagielski pointed to the immunity from phthisis enjoyed by inhabitants of the steppes of Tartary as an argument against the specific value of mountain air. Iceland also enjoyed similar immunity.—Dr. Borchardt said that if the value of Davos was to be ascribed to the antiseptic character of the air, there was no reason why other regions should not be equally suitable. No place had shown such good results as Davos. He had known hæmoptysis to cease directly after arrival at Davos, and to recur on leaving the resort.—Dr. Townsend

said that the extent of the disease should determine the selection of cases sent to Davos, or on a sea-voyage.—Dr. Bennet could not explain the immunity enjoyed in Iceland, where the inhabitants dwell in ill-ventilated houses; and pointed out that the question was becoming one of an aseptic atmosphere.—The President, in closing the discussion, pointed out some of the difficulties of the subject, and considered Dr. Allbutt's theory a reasonable one.

A paper on Inebriety and Allied Nervous Diseases in America, by Dr. BEARD, of New York, was followed by one on the Influence of Treatment in the cure of Rheumatic Fever before and since the employment of salicylic acid, by Dr. W. Squire.—The President thought the dangers of salicylic acid were underrated; he was aware of two cases fatal from its use. Another speaker also expressed an unfavourable opinion on the safety of the drug.

In the Dermatology sub-section, Dr. George Thin read a paper and showed specimens of Cellular Growths in the Skin which produce Ulceration, and an interesting discussion arose on the subject of Hydroa, papers being contributed by Drs. Finney and Sangster.—Mr. Malcolm Morris thought the term hydroa should be discarded.—Dr. Yandell, of Louisville, on the other hand, was inclined to retain the term as a generic one for forms of vesication.—Dr. Walter Smith had seen three cases, in all of which there was a history of hard work and malnutrition.—Dr. Finney, in reply, considered the term hydroa to denote a group of phenomena perfectly distinctive; it was a term more definite than erythema multiforme.—A very interesting paper, by Dr. Walter Smith, on a rare nodose condition of the hair, followed.

In the Surgery section, the President, Dr. TANNER, delivered an address, dealing chiefly with local topics, but closing with an exhortation in favour of antiseptic surgery.—Dr. SAYRE, of New York, then opened a discussion upon the Diagnosis and Treatment of Joint Diseases in the various stages. The gist of his remarks, full of apt and quaint illustrations, may be summed up in the statement that he believed traumatism to be in all cases the necessary starting-point of joint disease. At the same time he allowed the modifying influence of constitutional conditions. Papers on the same subject were read by Dr. MACNAUGHTON JONES, who showed several good cases with illustrations of operative interference in disease of the hip, knee, and ankle-joint; by Mr. JOHN FAGAN, in the form of notes on the treatment of disease of the wrist-joint, with a report of a successful case of excision in a child six years old; by Mr. W. MACCORMAC, on a case of excision of the shoulder and elbow-joints for gunshot wounds in the same arm; by Dr. MORGAN and Mr. STEELE; the debate (not very vigorously conducted) being shared in by Messrs. E. Owen, Macewen, W. Adams, and Hodges (of New York).

In the subsection of Ophthalmology and Otology, the subjects of cataract and of the intra-tympanic injections of medicated fluids were the main topics respectively dealt with in those departments. Mr. Hutchinson was unable to be present. The otologists appeared in considerable force, Dr. Weber Liel of Berlin, and Bonnafont of Paris, sharing in the debate.

In the section of Obstetric Medicine the subject of intra-uterine medication was discussed by Drs. Playfair, Atthill, Battey, Tilt, Cordes (of Geneva), H. Bennet, and others.

In Public Medicine, at the commencement of the proceedings, Dr. PACCHIOTTI, of Turin, invited members of the Association to the International Congress of Hygiene to be held in Turin in April next.—Dr. ANDREW FERGUS (of Glasgow) then opened a discussion upon the influence of drinking water in originating or propagating enteric fever, diarrhœa, diphtheria, and scarlatina. Limiting himself to his personal experience, he showed how diphtheria had diminished in Glasgow since it had received a supply of pure water.—Dr. ALFRED CARPENTER followed with a paper on the dual requirements necessary for the production of enteric fever, and the fallacies which are based on a narrow view of the germ theory; his main argument being that pure water was destructive to typhoid germs, and that if the body of the recipient were healthy, and had not been exposed to miasma from decomposing animal matter the germ would abort and fever would not follow.—Dr. G. LANE NOTTER read a paper on the chemical and microscopic analysis of water for the detection of organic and organised matter.—Papers by Dr. KERR and by Dr. BALLARD (read in his absence by Dr. Martin, of Portland) followed. Surgeon-General Crawford in the course of his remarks, held that impure water would not account for all the facts of contagion. Others also spoke, and the discussion, which throughout had been well maintained and full of interest, was closed by the President, Dr. Grimshaw. It may be added here that one marked feature of the meeting is the establishment of a sanitary museum in the new palm houses in the college grounds. It is very completely furnished and well-arranged.

In the section of Psychology, after the President's address, a debate occurred on the prevention of insanity; and papers were read by Dr. Seguin on the Psycho-physiological Training of an Idiot Hand; by Dr. Ball (Paris) on Claustrophobia; and by Dr. Ashe on a case of Defective Renal Elimination of Potash Salts.

In the Physiology section, Mr. Henry Power, the President, delivered an address; the report of the Glasgow Committee on Anæsthetics was submitted by Dr. Coats; an interesting communication on the mode of propagation of nervous impulse was made by Professor Charles, and Dr. Reuben Harvey contributed a paper on the Causation of the Dicrotic Pulse-wave. But the chief feature of the section was the demonstration by Dr. Richard Norris of the existence of a Third Corpuscular Element in the Blood, presenting the same colour and refractive index as the liquor sanguinis. It will be remembered that Dr. Norris exhibited micro-photographs of this at the recent *soirée* at the Royal College of Physicians. His demonstration to-day was largely attended, and it is to be continued to-morrow or the following day.

The Irish Graduates' Association held their annual meeting this afternoon, Mr. MacCormac, President, in the chair. A resolution adverse to the new Irish University Bill was proposed from the chair, seconded by Professor Macnaughton Jones, and carried. It was resolved that Dr. G. E. Paget, of Cambridge, be the President for next year, when it is proposed to hold two meetings, one in London, on St. Patrick's day, and the other at Cambridge in August. In the evening the members of this Association dined together at the Imperial Hotel.

The *conversazione* given this evening to the members of the British Medical Association, by the Mayor, Corporation, and citizens of Cork, took place in the Opera House. It was largely attended, but, owing to the admirable arrangements, there was no inconvenient crowding. Some excellent music was performed, and a marked feature of the reception was the exhibition of paintings, the works of local artists, among whom are included James Barry, Maclise, and others, some of whom died young, leaving behind them works of great power and promise.

Thursday, August 7th.

Although not strictly a part of the proceedings of the Association, the breakfast given this morning in Faulkener's-lane Hall by the British Medical Temperance Association was attended by a large number of the leading members of the former body. The chair was taken by Dr. Norman Kerr, who, at the close of the breakfast, which was excellently served, gave an account of the rise and progress of the temperance cause in the medical profession. He mentioned that the British Medical Temperance Association had been three years in existence, and now numbered two hundred members, and characterised it as a standing protest against the sanction of the educated classes to the drinking customs and unwise legislation which have brought on us the stain and disgrace of our national sin of intemperance. The Society does not meddle with extraneous questions, such as alcohol as a medicine, each member being as free to prescribe alcohol as if he were not an abstainer. The city of Father Mathew was a fitting spot in which to hold the meeting. Dr. Kerr concluded with an earnest appeal to his hearers to give careful and candid consideration to the cause he had at heart. Dr. Alfred Carpenter, Professor O'Connor, Professor Macnaughton Jones, Mr. Hart, and others also addressed the meeting.

The proceedings at Queen's College commenced with the third general meeting, at which the reports of several committees were received—viz., that on Medical Reform, read by Dr. Waters; on Habitual Drunkards, by Dr. Carpenter; and that on Scientific Grants by Dr. Wade. With regard to the last of these it may be mentioned that the majority of the researches for which grants had been made were reported as being still in progress; that on Hydrophobia was nearly completed, and that on Epizootic Pneumonia was published. Further grants were recommended as follows:—Drs. Ferrier and Gerald Yeo, for Researches with the view of Testing

the Application of Antiseptic Surgery in Cases of Lesion of the Skull, Brain, and its Membranes, £50; Dr. Newman, Research on the Functions of the Kidney, and on the Physical Conditions which Regulate the Flow of Urine, £10; Mr. Malcolm Morris, an Investigation into the Anatomical Characters of Certain Diseases of the Skin allied to Tubercular, Scrofulous, Lupoid, and Syphilitic Affections, £10; and Dr. McKendrick, Investigation on Anæsthetics, £50.

The Address in Surgery was then delivered by Mr. W. S. SAVORY. Taking for his subject the Prevention of Blood-Poisoning in the Practice of Surgery," he first defined the term blood-poisoning, and pointed out the conditions under which it occurred—viz., the entrance of decomposing or septic animal matter into the blood. He then proceeded to discuss the subject of antiseptic surgery, deprecating too exclusive a use of the phrase "antiseptic." He stated that by enforcing absolute cleanliness the risks of blood-poisoning after operations were reduced to a minimum; the results were as good as any obtained on the strictest Listerian methods; and he deprecated the use of drainage-tubes as sources of irritation. He concluded an address, remarkable for its fluency and eloquence, for he spoke for nearly an hour and a half without a note, by attacking and somewhat ridiculing the system of antiseptic surgery introduced by Mr. Lister.

On the conclusion of the address in Surgery the gold medal of the Association was presented to Surgeon-Major Reynolds of Rorke's Drift fame; the medal being received and acknowledged on behalf of Surgeon-Major Reynolds by Surgeon-General Crawford of Dublin, who, in the course of his remarks, stated that the Victoria Cross would have been awarded to Surgeon-Major Reynolds at the time of his promotion, had it not been that an accidental omission from the despatches rendered necessary a reference back to the Cape.

In the interval between the morning and afternoon meetings, several members have availed themselves of the hospitality of Mr. and Mrs. Pike, of Besborough, Blackrock, where luncheon was provided, and the company enjoyed the opportunity of visiting the charming grounds and vine houses surrounding the mansion.

At two o'clock the sections resumed their work.

In the Medicine section the subject of the Treatment of Rheumatism by Salicylate of Soda was concluded in a few remarks by Dr. Southey and the President. The former stated that he had met with three or four cases of collapse due to the drug, which he regarded almost simply as a palliative. He proposed to investigate the action of salicylic acid and soda separately. Dr. Clark summed up by pointing out that we have no stable criterion to test the efficacy of the drug, owing to lack of complete knowledge of the natural history of the disease; that conclusions were apt to be vitiated by failure to distinguish between the continued and intermittent forms of rheumatic fever, as pointed out by Dr. Southey; that the influence of salicylic acid and its compounds was to remove pain, dispel malaise, but it was doubtful if they diminished the cardiac complications, or if they removed the actual rheumatic condition; whilst cases so treated were very prone to relapse, and the use of the drug was not devoid of danger.—An interesting debate then took place upon the use of Alcohol in Fever. It was opened by Dr. Little, of Dublin, who urged its judicious employment, and spoke strongly of its value in pneumonia.—Dr. Tibbits, of Bradford, urged that alcohol was a food and allied to fats; that it was not to be given in mild cases of fever, but that its administration should be commenced early in moderately severe cases. He discountenanced its use in convalescence. He regarded high temperature, tremors, and dry tongue as indications for its prescription; and if the tongue became moist would take that as evidence for the continuance of alcohol.—Dr. Wade, of Birmingham, believed that it must be prescribed empirically, the chief indication for its use being failure in circulation.—Dr. Macnaughton Jones gave his experience of six years, at the Cork Fever Hospital, of typhus and typhoid. He thought many cases did not require alcohol; and that it was injudicious to commence its administration early in the disease. It had but little effect on the temperature. Young subjects, as a rule, do well without it. It was valuable as a food when assimilation was impaired. He deprecated its indiscriminate employment in early stages of fever, and its continued use when symptoms showed that it was acting injuriously.—Dr. Balthazar Foster, of Birmingham, thought it of value in improving the circulation, and pointed out the physiological grounds for belief in its combustion in the body.—Dr. Norman Kerr admitted the value of alcohol in certain cases of fever in adults or old persons.—A paper by Dr. Morell Mackenzie, on Laryngeal Phthisis, brought the day's proceedings in this section to a close.

In the Dermatology sub-section papers on Ringworm, by Dr. Cottle; on the Neurotic origin of Lichen Planus, by Dr. Colcott Fox; on the Use of Arsenic in Skin Diseases, by Dr. Farquharson; on Erythema Nodosum, by Dr. C. F. Moore; and on Scarification, by Mr. M. Morris, were taken as read.

In the section of Surgery the subject of Subcutaneous Osteotomy has been under discussion. Mr. W. Adams opened the debate in a paper which was rather a survey of the progress made in this direction than suggestive of any special line of practice.—Dr. W. Macewen read a paper on Antiseptic Osteotomy.—Mr. R. W. Parker related details of twenty-five cases of osteotomy in young children, chiefly cases of genu valgum.—Mr. MacCormac also related cases. Exception was taken to the early age of most of Mr. Parker's cases by Messrs. Owen and Adams, but the first-named gentleman pointed out that the fact that there was no spontaneous recovery from the deformity was proved by the existence of cases at a later age, and justified the adoption of early measures.—Dr. J. R. Hayes of Tralee showed a case almost unique in surgery. It was a woman from whom he had removed the entire right parietal and half of the frontal bones, the result of a burn; the exposed surface was treated by skin-grafting and resulted in complete recovery, the head presenting a curiously asymmetrical appearance.—A discussion on Glaucoma, shared in by Mr. Power, Dr. Brinley, Dr. Vacher, and others, took place in the sub-section of Ophthalmology. Dr. Brinley exhibiting a large number of microscopical preparations in illustration. The subject of Diphtheritic Ophthalmia was also discussed. In the Otology sub-section, the subject of Tinnitus Aurium was debated.

In the section of Obstetric Medicine more papers on Intra-uterine Medication have been read, and a discussion has been held on the subject of hæmorrhage from the genital organs during pregnancy and parturition.

In the section of Public Medicine (to the meetings of which the general public are admitted), Dr. Grimshaw, President, delivered an address, reviewing the work of the Association with regard to public health. A discussion upon the best mode of dealing with convalescents from acute infective diseases was opened by Dr. J. W. Moore, of Dublin, and shared in by Dr. Vacher, of Birkenhead, Dr. Ransome (whose paper was read by Dr. Notter), Professor Pacchiotti, and several others.

In the Psychology section, the debate on the Prevention of Insanity, adjourned from yesterday, was opened by Dr. Herbert Major.

Lastly, in the Physiology section, Dr. Thin read a paper on Connective Tissue, and Drs. Charles and Pearson gave a demonstration in some recent physiological apparatus.

This evening the public dinner of the Association has been held in the Assembly Rooms, under the presidency of Dr. O'Connor. It passed off very well, fully 300 being present.

HEALTH OF LARGE ENGLISH TOWNS

IN THE THIRTY-SECOND WEEK OF 1879.

IN twenty of the largest English towns 4774 births and 2461 deaths were registered during last week. The births were 408, and the deaths no less than 709, below the average weekly numbers during 1878. The deaths were 126 less than those returned in the previous week. The annual rate of mortality per 1000 persons estimated to be living, which had been equal to 17·1, 17·6, and 18·3 in the three preceding weeks, declined again last week to 17·4. During the past six weeks of the current quarter the death-rate in those twenty towns has averaged only 17·7 per 1000, against 24·4, 20·8, and 25·5, in the corresponding periods of the three years 1876-7-8. The lowest death-rates in these twenty towns last week were—10·3 in Portsmouth, 10·4 in Wolverhampton, 12·7 in Leicester, and 13·3 in Brighton. The rates in the other towns ranged upwards to 19·6 in Liverpool, 19·7 in Salford and in Oldham, 21·3 in Newcastle-upon-Tyne, and 26·9

in Sunderland. The deaths referred to the seven principal zymotic diseases in the twenty towns last week further rose to 427, owing to the increased fatality of diarrhœa; 141 resulted from diarrhœa, 95 from scarlet fever, 82 from measles, and 66 from whooping-cough. The annual death-rate from these seven diseases averaged 3·0 per 1000 in the twenty towns, and ranged from 0·0 in Brighton and 0·7 in Newcastle-upon-Tyne and Wolverhampton, to 3·6 in London and Bradford, and 4·1 in Sunderland. The fatal cases of diarrhœa in the twenty towns, which had been only 47, 61, and 86 in the three previous weeks, further rose to 141 last week; in the corresponding weeks of the three years 1876-7-8, the fatal cases were, however, 712, 362, and 947. Measles showed last week the largest proportional fatality in London and Bradford; scarlet fever in Sunderland, Bradford, Oldham, and Leicester; and whooping-cough in Bristol and Birmingham. Nine of the 12 deaths referred to diphtheria in the twenty towns were returned in London. The fatal cases of fever continue satisfactorily few. Small-pox caused 5 more deaths in London, but not one in any of the nineteen large provincial towns. The number of small-pox patients in the Metropolitan Asylum Hospitals, which were 353 on 22nd February last, have since steadily decreased, and were but 96 on Saturday last; 20 new cases of small-pox were admitted to these hospitals during last week, against 20 and 18 in the two previous weeks.

SANITARY NOTES.

THE sanitary authority of Weston-super-Mare has been very much exercised because of so-called false reports as to the prevalence of diphtheria in their town. An enthusiastic member of the Board took the practical step of addressing certain categorical questions to all the resident medical men, which seemed to have as its outcome the fact that no malady of the kind exists, or has existed there for a long time.

The Sheffield local authorities seem to be in sanitary difficulties again, and on this occasion a new fever hospital is the subject. It appears that the original estimate was £9500, but that as things now are the entire cost will probably be raised from £15,000 to £20,000, or more than £300 per bed. The fact is that the sanitary committee is unluckily composed of two parties, who are not content with restraining each other's proceedings in a fair way, so as, as in similar bodies, to hit the happy medium, but indulge in unseemly personalities, wasting public time and resulting in a lame and very indifferent performance of work.

Steps are being taken by the Port Sanitary Committee of the Corporation to prevent the recurrence of events such as those alluded to in THE LANCET some weeks ago—the landing of small-pox cases in the east of London. There is, however, this great difficulty: the Authority has no power to stop a vessel, and if the Customs officers at Gravesend give her a sanitary as well as a general clearance at that place on the assurance of the master that all are well on board, the sanitary officer has no opportunity of detecting if an error has been committed, or if any sickness really exists, until the ship is docked or comes to moorings in the river. In both the cases recently referred to, the Customs' clearance was given at Gravesend, and the vessels went up with clean bills of health, and although only a few hours elapsed before the Port Inspector arrived, the passengers had landed, because there was no authority to prevent them.

OUTBREAK OF CHOLERA AMONGST THE BRITISH TROOPS AT THAYETMYS, BRITISH BURMAH.

(*From our Special Correspondent in British Burmah.*)

THAYETMYS, on the frontier of British Burmah, where some months ago a large military force was assembled to be in readiness in the event of our being involved in war with the King of Burmah, has lately been visited with a severe epidemic of cholera. The cantonment of Thayetmys is situated on the right bank of the Irrawaddy, four hundred miles up the river. The barracks for the European troops are fine substantial buildings, well ventilated, and well elevated from the ground. The force at present consists of Her Majesty's 43rd Light Infantry, in medical charge of Surgeon-Major Pout; the head-quarters of Her Majesty's 44th Regiment, in medical charge of Surgeon-Major Johnson; the right wing of Her Majesty's 89th Regiment; one battery of Field Artillery; one and half battery of Garrison Artillery: the 19th, 31st, and 32nd Regiments of Native Infantry; together with a company of the Queen's Own Sappers and Miners.

The disease first appeared on the 22nd June. A sergeant of the Royal Artillery was attacked on that day, and died early next morning. The next case among the European troops was a gunner of the Royal Artillery, who was attacked on the 28th June, and died next day. After that date the disease manifested itself throughout the cantonment, every corps and battery suffering from its ravages. Amongst the first who fell victims were Surgeon C. Lloyd, M.D., in medical charge of the 31st Regiment Native Infantry, and Surgeon M. E. Murphy, M.D., in medical charge of the 19th Regiment Native Infantry; the former died on the 3rd July, and the latter on the 8th.

The disease is not localised, but made its appearance almost simultaneously amongst European and native troops throughout the cantonment. There is no official evidence to show that cholera existed amongst the civil population of the villages up or down the river, and no case, prior to the appearance of the disease amongst the troops, was reported to the Deputy Commissioner of the district; but it is to be remembered that this absence of official information is no proof that the disease did not exist.

Every precaution has been taken to arrest the outbreak and prevent the spread of the disease; the moment a case occurred the building was vacated, fumigated and otherwise purified, the men being encamped in a suitable place in the cantonment, and afterwards, if further cases occurred, removed to a cholera camp specially selected on the other side of the river.

The admissions and deaths up to the present morning of July 19th have been:—

	Admissions.	Deaths.
Royal Artillery	2	2
43rd Regt.	6	3
44th ,, ...	4	3
19th Regt. Native Infantry ...	1	1
31st ,, ,, ...	10	7
32nd ,, ,, ...	4	2
Sappers and Miners	2	1
	29	19
Camp followers	7	7
	36	26

Nine remain under treatment in a very critical state.

The disease appears to be of a peculiarly malignant type, death taking place in some cases within a few hours. The medical officers are unwearied in their exertions in administering relief to the sufferers, and in protecting the health of those entrusted to their charge. There have only been a few cases amongst the civil population of Thayetmys.

Correspondence.

"Audi alteram partem."

ON THE PREVENTION OF BLOOD-POISONING IN THE PRACTICE OF SURGERY.

To the Editor of THE LANCET.

SIR,—Mr. Savory's Address on Surgery, at Cork, is an open challenge to all who believe in the antiseptic method, and will doubtless be willingly responded to. His utterances are valuable, as expressing the views, not only of one admitted leader in the profession, but also of a large number of able men, holding equally important positions, and who have not yet publicly stated their disbelief in the new surgery. And they derive additional weight from the uprightness and candour with which Mr. Savory has stated his case, as well as from the vigour of his language and the

clearness of his style. It, therefore, all the more behoves those who have subscribed to the new creed, and found out its practical value, to come forward and support it.

The most complete answer to Mr. Savory's position would be a positive proof, through the citation of a number of examples sufficiently great to eliminate the element of chance, that the results of wound treatment are better under Lister's method than under any other. As yet this is impossible, and for two reasons. Firstly, that accurate records on all the points at issue, not only on cases of blood-poisoning that have proved fatal, but on all cases of blood-poisoning fatal or otherwise, as also on such points as rapidity of recovery, hazard of operations, &c., are not kept, or at least are not produced, by the opponents of the antiseptic school; and, secondly, that the surgery of antiseptics has not been long enough in practice to afford a sufficient number of instances from which to deduce trustworthy conclusions. But though, in stern logic, it may be impossible, by inductive reasoning, to prove the superiority of the antiseptic method, yet it is possible, I think, by criticism of other methods, and by comparisons in crucial instances, to show that it has attained to results which no other plan has reached. With this view I offer the following criticisms on Mr. Savory's address.

"If the germ theory ..... contained the truth ..... what possible explanation is to be given of that which is witnessed daily and hourly—the kindly repair of exposed wounds? ..... Not only may such (putrid) fluids be in contact with open wounds without provoking any evidence of mischief, but a collection of the foulest kind in a state of the most active putrefaction may be pent up in a closed cavity ..... for a long period without any visible disturbance of the general health."

Now, at the outset, kindly healing of exposed wounds is quite beside the question. Antisepticians have not to show why many wounds heal kindly when exposed to septic influences. This they freely admit, and endeavour to explain. What is their concern is, why other wounds *do not* heal kindly, and why from those wounds blood-poisoning is sometimes begotten. Having found the reason, their practical aim is a double one—either to make them heal kindly, or, if they cannot do this, to prevent their being starting points for septicæmia. Let us suppose that primary healing is the rule, and unhealthy wounds and blood-poisoning the exception; then antiseptics endeavour to combat the exception. And further, that septic matter may be on open wounds and not cause blood-poisoning is undoubtedly true, and it is very fortunate that it is true, but it is quite irrelevant. What would Mr. Savory have us to infer from this? That we are always to act as if this septic matter were never to be absorbed? or, simply, that there is a "granulation membrane" between it and the blood, which must on no account be disturbed? We are not to be misled by the statement that septic matter often lies on bare wounds and is not absorbed; but we must have a positive answer to the question. When septicæmia does occur, what gives birth to it? Mr. Savory himself tells us it is from absorption through the wound; and, if so, what matters it that cases often occur where absorption might take place but does not? Are we not always to act on the presumption that absorption will take place? And, concerning this granulation membrane which separates the putrid fluid from the absorbing surface, surely it would be wiser to test its power as an opposing barrier by a fluid that was sweet than by one that had no such pretensions. Towards the end of septicæmia, Mr. Savory has "the fluid potent for evil" ready made in the wound; by frequent manipulation, strapping, &c., he is not unlikely to break down this membrane, and thus reach "a surface ready to transmit the poison."

Mr. Savory goes on to state that the fluids on the surface of a healthy wound are innocuous and free from putridity, but admits that if they be there long enough they will become putrid and dangerous. Now, I shall not here inquire what is the exact scientific meaning of the term "putrid," I would simply call attention to two points of practical importance. The first is as to how soon such fluids may become putrid. If some recorded cases of pyæmia are to be trusted, they will become so in less time than the forty-eight hours which Mr. Savory considers safe. The other point is whether the sort of cleansing described in the address is to be trusted to reach every hole and cranny in the wound, so as to be certain that this fluid shall be changed often enough to ensure its remaining free from the actual putridity which Mr. Savory admits it possesses in potentiality. It is not denied in the address that organic fluids in a Florence flask can be kept free from putridity for an indefinite length of time; then, if organic fluids oozing from a wound can also be kept free from putridity for long periods (which has been abundantly proved), why does not Mr. Savory receive with satisfaction this immunity from the influence he dreads?

Mr. Savory next quotes Dr. Roberts to the effect that "ordinary septic bacteria are not parasitic on the living tissues." Well, what then? If septic bacteria do not thrive there, something else that is septic does; or, if not, why this address on "The prevention of blood-poisoning in the practice of surgery"? After graphically depicting the dangers that arise from the absorption of septic material of some sort, and preparatory to showing how he considers this absorption may best be avoided, surely it is somewhat beside the mark to say that "septic bacteria are not parasitic on the living tissues." Antisepticism (by this I mean, throughout, Lister's method) chooses to work on the hypothesis that bacteria are the active septic agents; but it matters not one iota to the practical outcomes of the method whether the malignity lies in the bacteria or in anything else. The practical results of antiseptics would be no more influenced by the fall of the germ theory than the operations of chemistry from the fall of the atomic theory.

No one can object to Mr. Savory's definition of antiseptic surgery. But, at this time of day, it can hardly be necessary to enter into a discussion as to what "cleanliness" in the surgical—may I say, scientific?—sense means. Certainly, we do not look for this sort of cleanliness in "clean water." If Mr. Savory wanted to keep an organic fluid clean or free from the possibility of becoming putrid (which is, I presume, his meaning), he would not rinse out the flask with "clean water." And if not a flask, why a wound-cavity?

Now, we come to what Mr. Savory thinks the weightiest part of his argument — the slight mortality from blood-poisoning under the treatment he advocates. He and the surgical staff at St. Bartholomew's Hospital are certainly to be congratulated on their success; and the thought occurs, if their results have been so satisfactory under an imperfect system of antiseptics, how much better might they have been if the system had been carried out to perfection? As I have said, it will probably be found that correspondingly large statistics will not be forthcoming in support of the antiseptic method, because of the short time during which it has been in use. As a contribution in this way I may be permitted to quote the instance of the institution with which I am connected, during its two and a half years of antiseptic existence. During all this time, out of a total of more than 500 operations of severity probably equal to those at St. Bartholomew's not only have we had no death from blood-poisoning, but we have had (with the exception of two cases of erysipelas in wounds treated non-antiseptically) no instances of it. So far as Mr. Savory's argument goes, this is a fairly complete reply. His argument is incomplete, however, because it leaves out a great many other points, such as the period of convalescence, the character of the operations, and so forth. If he cares to bring forward such points as these, I shall be very happy to give comparative statistics. But comparisons between the methods are, in many instances, impossible; for under Lister's plan, operations are performed which have no counterpart in modern surgery. Take, for instance, the series of modern operations on joints. Can plain "clean water" surgery, in all the years of its lusty manhood, show results to compare for one moment with this outcome of antiseptics in its veriest infancy? Antiseptic surgery courts danger, it is said, yet it escapes harm; "clean water" surgery shuns danger, yet it is caught. It is no discredit to the system—certainly it ought not to be quoted against it—that sometimes these operations should never, in Mr. Savory's opinion, have been performed. The surgeon may be the criminal; but it is all the more to the credit of his system that when he does commit the error, antiseptic surgery sees him safely through it. It is wandering from the question to say that they had better never have been performed.

One test of Lister's method is where, in a hospital which has had a high mortality from blood-poisoning, and which has defective sanitary arrangements, antisepticism has been able, single-handed, without the co-operation of sanitary improvements, to bring about a notable diminution in the death-rate. Mr. Savory is himself aware of such cases, but refuses to have them quoted in support of antiseptic surgery; for, he says, the favourable results in these instances are more likely to have arisen from the adoption of the cleanly

habits which are a part of the antiseptic system, than from the uncompromising adoption of the principle itself. To begin with, he here takes for granted what he has to prove. What if I were to say that the unproved mortality depended on the giving up of such modes of dressing with carbolic oil, poultices, strapping, &c., as Mr. Savory advocates, and the adoption of Lister's method in every detail, mal-hygiene being left undisturbed. It would probably be found that I was as near the truth as he was. One conjecture may be as good as another, but no number of conjectures constitute an argument.

Besides, it is not the case that cleanly habits, in the sense that Mr. Savory means, are a part of antiseptics. The wound is put up and left unwashed for days, or even a week; and if the observance of strict antiseptic method had not been attended to, the results would have been, if possible, worse than under the original dressings. Mr. Savory's position would have been more tenable if he had shown that there were improvements in the hygienic conditions of these hospitals at the time that Lister's plan was introduced; but no such improvement is mentioned. Mr. Savory's plan wants the co-operation of sweet air, and still occasionally fails; Lister's plan can defy foul air, and frequently succeeds. Other things then being equal, in the matter pure and simple of guarding wounds against septicism is not Lister's plan better than Savory's?

Mr. Savory does not employ drainage-tubes. When a collection of fluid forms, he lets it out with a probe or director. Now he does not dress his wounds oftener than every twenty-four hours; how does he know that the opening made by the director will not have closed before another twenty-four hours, and so permit another collection to form? His treatment is helpless till the fluid has distended the wound cavity, and caused the mischief; drainage-tubing prevents the collection from forming at all, and the mischief does not occur. If a gush of fluid follows the removal of a piece of tubing, then the process has been imperfectly carried out: either the tube has become blocked, or has not been inserted deeply enough, or sufficient support has not been applied to the abscess cavity to prevent its bagging. No one, so far as I am aware, ever claimed for drainage-tubing "a power to draw fluid upward out of a cavity." All that has been claimed for the tubes is, a power to keep an opening ready for the exit of fluids that are slowly ejected from a cavity which is contracting by its own resilience or under the uniform pressure of a bandage. A drainage-tube is neither a suction-pump nor a water-hose. It is simply a cloaca that permits the sewage to flow, and gives it no power to stagnate.

Mr. Savory has much to say in favour of poultices, and most surgeons will agree with him. But it cannot be denied that the application of a poultice is evidence of a surgical failure. It is a proof that the surgeon has failed to secure the most favourable result in healing. Poulticing promotes suppuration, it is said; and we are asked to believe that this is a healthy process, something to be encouraged. And so it is, in one sense. A granulating suppurating surface is a secreting, not an absorbing one, and so affords an effective barrier to the fermenting compound of poultice-juice and pus getting into the system. But in another sense suppuration is to be avoided, for every pus-cell which is floated away in the discharge is a dead loss, not only to the system but to the granulation tissue. Pus is a waste product in proportion as we manufacture it by our treatment. There is no pathological reason why every pus-cell which is set free might not be conserved for the building up of the new tissue. And it is a clinical fact that granulations may be built up, almost without suppuration, much more quickly than with it, as everyone that has treated ulcers antiseptically knows. It might be interesting, by the way, to know how many deaths that do not appear in statistics as blood-poisoning, could be relegated to the domain of pus, poultices, and hectic.

Another argument is founded on the supposed practical difficulties in dressing according to Lister's plan; that there is considerable disturbance of the patient as well as some elaborateness in the process. The first objection is best met by a reference to those who have had experience of both plans. Antiseptic wounds are painless, and this, I suppose, because of their freedom from inflammation; a properly applied gauze dressing is as comfortable as the most skilfully manufactured poultice; and, seeing that the wound is left untouched for days at a time, there is not much to complain of in the way of disturbance. The second objection is a real one, so far as the surgeon is concerned, for it demands that he shall be, to some extent, a scientific manipulator in addition to his other accomplishments. Antisepticism is not yet surgery made easy, though it strives after being surgery made safe.

A case is quoted where a large chronic abscess was opened, and treated after Lister's method, and the result was an elevated temperature. The drainage-tube was removed, a bread poultice was applied, and the temperature fell. Did Mr. Savory seriously mean us to infer from this one case that the irritation of a drainage-tube is sufficient to elevate temperature? If he did so I should immediately quote another case—a dozen if necessary—to show that drainage-tubing does not elevate temperature. Nay more, I can quote more than one case to show that a change from antiseptics and drainage to poulticing has resulted in anything but depression of temperature.

In conclusion, Mr. Savory freely admits that the principle on which Lister's surgery rests is a sound one, and, with perfect justice, quotes Dr. Roberts to the effect that "the essence of the principle is not exactly to protect the wounds from septic organisms, but *to defend the patient against the septic poison.*" Will the defence be perfect if it does not include the wound? On Mr. Savory's own showing his own method of defence is not a perfect one—he only imperfectly excludes the poison. Mr. Savory will admit that septicæmia can never arise from a discharge which is simply aseptic; why, therefore, does he not make use of the only form of dressing which as yet has been shown competent to preserve discharges in this condition? Surely no surgeon in these days will say *spero meliora proboque, deteriora sequor.*

I am, &c.,

J. GREIG SMITH, M.A., C.M.,
Surgeon to the Bristol Royal Infirmary.

Clifton, Bristol, August 11th.

THE TREATMENT OF HYDROPHOBIA.

To the Editor of THE LANCET.

SIR,—If Dr. Lownds refers to your last year's volume he will find a case of hydrophobia treated in our infirmary here in April of that year, and I think he will agree that the course pursued was both rational and successful; the principle being to let the disease wear itself out, the patient being constantly kept under the influences of chloroform and subcutaneous injections of calabar bean and narcotics.

Having seen already several cases of this horrid disease, I myself should be sorry to have personally another one to treat; nevertheless I am most anxious that this treatment should be well tested, firmly believing that by its means at least some recoveries may ensue—that is, if carried out with perseverance for days, and that the disease be recognised in an early stage. To this end I shall be most grateful to any of your readers who, having a case of rabies, will take the trouble to telegraph to me, when, if at all practicable, and the distance be within reasonable limits, I shall be pleased to see it and assist in its treatment, which must be incessant and continued. Since the publication of the case above referred to I have been expecting to see reports of others treated on the same principle, but as yet in this I have been disappointed. The more I think over the cases I have seen the more convinced I am that the case before my last might have been saved, had I had, as in this latter, frequent relays of strong arms with determined and willing minds, void of the common prejudice about the disease.

I am, Sir, your obedient servant,

JAMES NICHOLLS, M.D., F.R.C.S. (exam.)

Chelmsford, August 12th, 1879.

STAFF-SURGEON NORBURY, R.N., OF FORT EKOWE.

To the Editor of THE LANCET.

SIR,—The Dublin University and Irish Colleges are showering academic honours on Surgeon-Major Reynolds, A.M.D., for his participation in the night's defence of Rorke's Drift, and rightly so; but I think there is another medical officer of the sister service who is equally deserving. I allude to Staff-Surgeon Norbury, of the Royal Navy, who was the principal medical officer of General Pearson's column

of invasion, and, besides being present at the battle of Inyezane, the only fight in which the Zulus attacked our forces in the open, and where he attended to the wounded under a heavy fire, the ambulance by which he stood having been repeatedly struck, was also principal medical officer of Fort Ekowe during its investment by the Zulus for nearly three months. Here, during a period of intense anxiety, almost entirely without medicines or medical supplies, with a very large sick list, it was through his judicious arrangements, both sanitary and medical, that a much greater mortality among the troops did not take place; and he has been most highly spoken of by General Pearson in both his published despatches.

Staff-Surgeon Norbury received his medical education at St. Bartholomew's Hospital, London, and is the author of numerous valuable papers, both in the medical periodicals and the "Health of the Navy;" and I think that some of the English Universities or Colleges might very fittingly bestow on him some token of their recognition.

I am, Sir, your obedient servant,

JUSTITIA.

THE AFGHAN WAR AND THE MEDICAL SERVICE.

To the Editor of THE LANCET.

SIR,—I hope it has not escaped your observation that, of the large number of high honours and decorations that have been distributed for the Afghan War, only one C.B. has been given to the entire medical department, and that is to the senior medical officer of the British forces. The Indian Medical Department has been entirely ignored. I think the great influence possessed by THE LANCET might well be used to rectify this marked neglect. While such invidious distinctions exist between the military and medical rewards for the self-same service, the medical service can never stand as high as it should. The whole of the Medical Services, British and Indian, will thank you for allowing a notice of this slight.

Yours, &c.,

SURGEON-MAJOR.

THE WAR IN ZULULAND.

THE following private letter has been handed to us for publication as of general professional interest:—

DEAR MR. BRYANT,—Though for several reasons the surgical experience gained during the present war here has not I think been very extensive, yet I venture to hope that a few observations made on the spot may not be entirely without interest to you. The number of wounded has not been great, because, in the first place, only comparatively small bodies of British troops have been engaged in any one action, and for another and more terrible reason, because any man seriously wounded so as to be incapable of moving, has, whenever the opportunity offered, been remorselessly butchered by our savage enemy. Neither have many wounded Zulu prisoners passed through our hands. A certain proportion of the Zulu wounded have I fear been killed, not to any extent by British troops, but by our native allies, whose mode of warfare is of the same exterminating character as their enemies'. Wounded Zulus have often been allowed by our officers to escape, as, owing to the scarcity of supplies, it was not considered advisable to burden ourselves with many prisoners; and perhaps a stronger reason than any for our having seen so few of the enemy's wounded is that, in common with other wild animals, they can carry an immense quantity of shot, and will crawl into the bush after receiving injuries which would in many cases prove almost immediately fatal, or at least utterly disabling, to a European. Our wounded have been treated here for the most part in huts and marquees. The huts were constructed of reeds fastened into a wooden framework and plastered with tempered clay inside and out; they were constructed to accommodate about 14 patients; the floors were just plain earth, much improved by a large coarse waterproof sheet being stretched tightly over them, which prevented exhalations rising from the ground, and foul matters from possibly soaking in; ventilation was amply provided for, though this matter required constant attention, as the patients, like most of their class, have, as a rule, the greatest horror of fresh air, and would stop up our ventilators on all opportunities. The huts, however, seem to have answered their purpose perfectly, as, though often terribly and unavoidably overcrowded, we have had no single case of pyæmia, erysipelas, gangrene, or phlebitis, though they have been occupied since January.

The majority of the cases of gunshot wounds have been slight. Two amputations of the thigh for gunshot fracture have been performed: one, about the middle, proved fatal in a few hours; the other, at junction of middle and lower third, or perhaps even a little lower, is doing well. A divided femoral artery was tied for secondary hæmorrhage at the seat of the injury, but, unfortunately, the patient sank, having lost much blood before the operation. There have also been, of course, the usual extractions of bullets under circumstances of varying difficulty. I am more than ever convinced, however, that if a bullet cannot be reached with the finger, accompanied by suitable manipulation of the tissues on which it presumably lies, it is quite the exception to discover it by means of any probe or other instrument at that time. I have noticed a marked difference between the wounds caused by the Martini-Henry bullet and those of the Kranker (almost identical with the Snider) which was used by the Russians. The Martini certainly makes a cleaner wound through the soft parts, with less laceration, than the larger softer bullet thrown from the Snider, the latter having also a much higher trajectory than the Martini, which seems to me an important element to consider, and I think, in soft parts, the Martini wounds heal better; but if a bone obstruct the path of the projectile, the smashing caused by the Martini is incomparably greater on the whole. I think a Snider ball more likely to stop a man in the heat of action, because I think it would produce greater shock. I think you have made almost all these observations, however, in your book—which, by the way, is quite the text-book, I find, of all the army surgeons and others here—indeed, I think no other is used. I might mention one or two remarkable cases which have come under notice.

Major F., 90th Regiment, wounded March 29th in the Zulu attack on Camballa camp. Very large circular ball struck him on left temple about one inch behind edge of orbit, passed through both orbits and ethmoid bone, dividing both optic nerves, and lodged beneath the skin of right temporal region, where it was extracted; total blindness, of course, at once; semi-comatose condition (probably pressure backwards of effused blood?); eyeballs *immensely* protruding. Treatment: perfect quiet, low diet, purgatives; removal, after a few days, of anterior portions of eyeballs, which showed tendency to slough. Discharge set up from eyes and left wound; brain symptoms relieved, but returned on two or three occasions, when discharge became scanty. After between two and three months' treatment, well enough to be invalided to England. A most melancholy and, as far as I know, unique case.

Carl F., private Frontier Light Horse, at the action of Klobain Mountains, March 28th, was struck just behind the angle of the lower jaw on the right side. The projectile passed directly inwards and penetrated the pharynx, whence the patient vomited it at once into his mouth, and spat it out into his hand; it was a spherical ball about half an inch in diameter. This man never had a bad symptom, and was discharged with his wound perfectly healed in about six weeks from date of admission. The principal treatment consisted in giving him such liquid nourishment as he could take.

I have had under my care three penetrating wounds of the chest; two proved speedily fatal, the remaining one is in a fair way for recovery. We have had post-mortem examinations of the fatal cases, and from them, as well as from other observations I have made, I have no doubt that in cases where fluid is present in any quantity in the cavity of the pleura, after a penetrating wound, it should be evacuated by some means or other as speedily as possible. I had neither drainage-tube nor aspirator at my command, or I think one of the fatal cases of perforating chest wound might possibly have been saved, as, in spite of careful position of patient, and making the dependent wound as open as possible with the finger daily, the chest was found after death to contain an immense quantity of fluid. In another such case I should not hesitate to enlarge the wound with a bistoury.

I am sorry to say that for the last two months I have myself been rather an interesting surgical case. We have had many night alarms, and on one such occasion I carried a wounded man on my back into the fort to a place of safety

While doing this I fell over a tent rope, severely straining my right knee, in which at the time I felt something crack. I had a good deal of pain and stiffness in it for some days, but went on with my work, as we were very busy just then; but it constantly felt stiff. About twenty days after the accident I awoke one morning with severe pain, a swelling in the joint, and all the symptoms of acute synovitis, so acute that by the evening of the same day I became furiously delirious, with high fever, &c. In this state I believe I continued between a fortnight and three weeks, but I know nothing of it myself, though I am told that my life even was in much danger; however, I am thankful to say I am better now, and have been out of bed two or three times, though I cannot put my foot to the floor yet. I am using Esmarch's elastic bandage applied pretty tightly over the joint, as there has been much effusion into it, and I seem to derive much support from it, and the swelling is becoming less daily.

I forgot to tell you that the few wounded Zulus under our care absolutely refuse any operation or treatment; they even take off splints as soon as applied. But, in spite of their stupidity, they do very well, and one has an opportunity of observing the natural history of gunshot wounds and fractures. They somehow crawl out of doors every day and nurse their fractured limbs with both hands, squeezing the wounds a good deal, and constantly washing them with a small stream of water, which they very cleverly manage to eject from their own mouths on to the wounds, though held at a distance of two feet or more. One man, shot through the head of the tibia—a fearful smash, knee-joint opened in all directions—has got *quite fat* under the above treatment and ordinary soldier's rations; the joint is of course in very bad position, but I suppose he will eventually recover, like a dog or cat which has been trapped or suffered other injury.

Believe me to be yours very sincerely,

Utrecht, Transvaal, July 6th, 1879. JOHN GILL.

MANCHESTER.

(From an occasional Correspondent.)

THE Privy Council having decided not to grant the power of conferring medical degrees to the new University which is about to be created, it may not be uninteresting to review some of the points connected with the subject which has given rise to so much criticism.

It must be remarked that the medical authorities, both at the school and at the infirmary, were adverse to the establishment of another licensing body. They would have been perfectly satisfied to make the M.D. Manchester a purely honorary degree, to be conferred on those who had obtained the proper qualifications to practise. To an unbiased observer it is difficult to understand what objections could be raised against such a degree, especially as at least one half of the examiners would have been appointed by Government, and there would have been but little chance of underselling the M.D. degree, had there been ever such a desire on the part of the college authorities.

Recent events have also shown that the teaching at our school is by no means as bad as the opponents to the Medical Charter have represented it. At the recent 1st M.B. (London) examination Owens College stands highest amongst all the schools of England as regards the number of men who passed. Taking the number of students who presented themselves from Manchester for the said examination the result is still more favourable to Manchester, for eleven candidates presented themselves, and of these nine passed (four in the first division). There can be no stronger proof than this to show the fallacy of taking the "pass list" of the College of Surgeons as a test of the teaching at our medical schools.

While on the subject of the medical teaching at the Manchester School it may not be out of place to mention some further improvements in the out-patient department of the infirmary, which will very much increase the facilities for teaching. That portion of the infirmary which is now used for out-patients will be converted into surgical wards, and in its stead a new building has been erected, consisting of a centrally situated large waiting-room, and leading from it a number of smaller rooms for the physicians and surgeons, with opthalmoscopic and electric rooms, a chemical laboratory, and a laryngoscopic room.

The medical school will also benefit by the establishment of a separate chair of Zoology, an appointment which has just been made. The plans for the new museum, which is to contain the zoological, botanical, geological, and palæontological collection, are now in the hands of the architect.

Considering the progress made within the last few years, one cannot help thinking that Manchester, after all, may yet become the seat of a good medical faculty.

Manchester, August 12th, 1879.

BIRMINGHAM.

(From our own Correspondent.)

SOME severe strictures having recently appeared upon the alleged insanitary condition of the Birmingham Eye Hospital, the Health Committee have directed the medical officer of health to make a most complete and thorough investigation of the sanitary condition of the building. This step has been rendered necessary by the fact that Mr. Goodman, the chairman of the committee of the hospital, at the annual meeting contradicted many of the allegations contained in the report, which he characterised as anonymous and unauthorised. The official inspection about to be made by Dr. Hill will be a guarantee to the subscribers and the public that whatever alterations are necessary for the health and well-being of the patients will be carried out.

PARIS.

(From our own Correspondent.)

IN the last number of the *Gazette Hebdomadaire*, Dr. Dieulafoy publishes the results of his researches on the therapeutic value of fuchsine in the treatment of Bright's disease. In 1876 the wholesale adulteration of wine by this agent was exposed by MM. Feltz and Ritter, and led to an inquiry into the supposed evils resulting from its use. In a memoir, however, on the subject, MM. Bergeron and Clonet concluded that the admixture of fuchsine was perfectly harmless, and even remarked that in one case of cardiac albuminuria, where the falsified wine had been employed, the albumen had completely disappeared during its administration. This led to further experiments by Feltz and Duclos, whose results have been given in the *Gazette Hebdomadaire* (1877). They find that fuchsine can be taken in daily doses of eight grammes, and that it therefore is not a poison. When symptoms of irritation (diarrhœa) do occur, they are due to the small quantities of arsenic which it often contains. Therapeutically, fuchsine is a diuretic, and causes an increased elimination of phosphates. The thesis of M. Divet "On Fuchsine in the Treatment of Chronic Albuminuria and of Parenchymatous Nephritis" contains an account of sixteen cases in which marked and rapid benefit was obtained during the administration of this substance. M. Dieulafoy's paper consists of an analysis of this thesis, and of four cases treated by him at Menilmontant. Fuchsine was given to these patients in doses of fifteen centigrammes daily, sometimes alone, sometimes in conjunction with other remedies. The general action was found to be *nil*; no improvement being obtained either in the thoracic, cephalic, or cardiac symptoms (dyspnœa, headache, vertigo, palpitations). Locally the action of fuchsine was uncertain and irregular; it was not diuretic, but sometimes appeared to moderate the desire for frequent micturition.

At the Academy of Medicine M. Rochard read the observations of a case under the care of M. Léséleuc, in which a triple amputation had been performed for the same injury. The patient, a railway *employé*, fell off a train which was being shunted in the station, and it passed over his limbs, crushing the left foot and ankle, and severing the lower part of the right thigh. The left arm had been dislocated in the fall. The condition of collapse which ensued appeared to contra-indicate immediate surgical interference, and it was thought advisable merely to complete the traumatic amputation of the right thigh, which was done by trimming the

skin and muscles. The following day amputation was performed through the left leg, and seventeen days later it became necessary to remove the left forearm on account of gangrene. The patient made a good recovery, and, thanks to the ingenuity of the surgical instrument-makers, may now be said to have regained the use of his limbs.

M. Le Fort brings forward a new method for the treatment of pulpy disease of joints, which consists of injections of a ten per cent. solution of sulphate of zinc, in a mixture of alcohol and water. Before introducing this into the joint, the cavity is emptied of any pus it may contain by aspiration. In one case this has been done every week since the 12th of May, and at the present time there is considerable improvement, both as regards the circumference of the limb and the restoration of movement.

PARLIAMENTARY PROCEEDINGS.

HOUSE OF COMMONS.

Friday, August 8th.

THE TENTH HUSSARS.

Sir ARTHUR HAYTER.—I beg to ask the Secretary of State for War what truth there is in the following statement of THE LANCET, copied into the *Army and Navy Gazette* of the 26th ult., respecting the return march of the 10th Hussars beyond the Indus—viz. : "The 10th Hussars, who, it will be remembered, lost fifty men in crossing the Cabul River at night some four months ago, have again been unfortunate, and head the list of cholera casualties. At Fort Balley, the second march from Gundamak, they reported fifteen deaths from cholera; fourteen more fatal cases occurred at Dakka, and six at Bosawul;" whether, while suffering from cholera, the 10th Hussars were hurried on by forced marches to reach the Indus before the bridge broke down on June 22; whether any order for forced marches was given while the regiment was suffering from cholera, either by the Viceroy or his military advisers; and whether such order would, under the circumstances, be approved by him.

Colonel STANLEY.—The only information, official or otherwise, that I can trace on the subject is contained in a letter from the officer commanding the 10th Hussars, in which he says that unusually large drafts will be required, and that recruiting must be carried on vigorously. In that letter reference is made to the regiment having suffered in passing through a country where there was a good deal of cholera prevalent. That is the only reference of the kind that I can find. I have no means of knowing whether the facts as stated in the question are correct. Whether such orders as that alluded to would be approved by me would depend upon the circumstances of the case, and I must therefore suspend my judgment.

Sir ARTHUR HAYTER.—Will the right hon. and gallant gentleman grant a return of all the regiments in Afghanistan from the time when the first advance was made upon Ali Musjid till they fell back over the Indus into India? That, of course, will include the casualty to the 10th Hussars. The point is whether they received orders to make forced marches in order to be in time before the bridge broke, or whether Lord Lytton would be asked why the regiment was hurried on?

Mr. E. STANHOPE.—I believe the real reason why the regiment was hurried on was the fact that cholera was prevalent where they were, and it was thought desirable to get them out of the district as soon as possible. It was not owing to the bridge being expected to break down.

Sir ARTHUR HAYTER.—Had they to take forced marches?

Mr. E. STANHOPE.—I cannot answer that.

Monday, August 11th.

THE DERBY MURDER.

Mr. CROSS said he wished to supplement an answer he gave a few days ago to the hon. member for Dundalk with regard to the jury in Gerald Mainwaring's case. He had on the occasion referred to said he had no authority for his remark that he could not conceive the jury would have acted in the manner alleged; but he had since made inquiry and he had received a letter from the foreman of the jury. The writer stated in reply to the inquiry respecting the mode in which the jury in Gerald Mainwaring's case came to a decision, that after the jury retired to discuss the case it was ascertained that they were equally divided as to the verdict. Six were for manslaughter and six for wilful murder with a strong recommendation to mercy. They had not then elected a chairman, and the writer, as foreman, having declined to act as such, they balloted for one, and agreed that the vote of the majority should carry the verdict, and that if they were equally divided the chairman should have a casting vote. There was no tossing or casting lots for the verdict. The only ballot was for the election of chairman. The writer wished this explanation to be made public to the fullest extent, so as to contradict many untrue reports which had been circulated. He (Mr. Cross) was bound to say that he could not come to the same conclusion as the one at which the foreman seems have arrived. The jury agreed to ballot for the chairman and they gave the chairman a casting vote, knowing that they were equally divided. That seemed to him to be very like casting lots for the verdict.

Mr. CALLAN gave notice that to-morrow he should inquire whether the capital sentence would, under the circumstances, be carried out.

Mr. CROSS said he should have thought it was absolutely unnecessary to put such a question.

Wednesday, August 13th.

THE WATER-SUPPLY OF LONDON.

Mr. FAWCETT called attention to the water-supply of London, and moved a resolution declaring "that, in view of the fact that the Metropolitan Board of Works has been unable to pass any measure dealing with it, this House is of opinion that it is a subject which ought, without further delay, to be dealt with by the Government."

Mr. CROSS, after some general observations on the water-supply, agreeing on the necessity for great improvement in the quality, mode of supply, and cost, said he was quite alive to the evils, and was not afraid of the difficulties. Without expressing any decided opinion prematurely, he promised on behalf of the Government that the subject should be fully looked into in all its bearings before next session, to ascertain whether the water-supply of the metropolis could be improved without any material increase in the cost, and whether it would be necessary to call on the companies to surrender their powers into the hands of some central body appointed by the Government. He hoped, therefore, that Mr. Fawcett would not press his motion, which might tie the hands of the Government and produce other injurious effects, by depreciating the stock of the companies, or raising hopes which could not be realised, or otherwise. But it must be understood by those who dealt in these shares that if the Government undertook any scheme of this kind, no action which the companies might take, no speculative arrangements into which they might enter, no prospective addition which they might make to the value of their shares, would be taken into account. The Government would take the shares as they found them—say at the last day of the last half-year.

Sir C. DILKE thought the statement of the Home Secretary very satisfactory, and hoped that it would be unnecessary to take a division on the motion.

Mr. FAWCETT withdrew his resolution.

Medical News.

UNIVERSITY OF LONDON.—The following is a list of the candidates who have passed the recent First M.B. Examination :—

ENTIRE EXAMINATION.

FIRST DIVISION.

Adeney, Edwin Leonard, Guy's Hospital.
Barron, Alex., Owens Coll. and Liverpool Royal Infirmary.
Batterham, John Williams, Westminster Hospital.
Bull, George Coulson Robins, St. Mary's Hospital.
Buxton, Dudley Wilmot, University College.
Clarke, Ernest, St. Barth. Hosp. and Downing Coll. Camb.
Corbould, Henry Francis, Charing-cross Hospital.
Crookshank, Edgar March, King's College.
Cuffe, Robt. Ernest Gilchrist, St. Mary's Hospital.
Dakin, Wm. Radford, Owens College.
Fenwick, Edwin Hurry, London Hospital.
Fielden, Wm. Eckett, Guy's Hospital.
Hayes, Thomas, Manchester School of Medicine.
Jefferson, Arthur John, St. Thomas's Hospital.
Lane, William, Guy's Hospital.
Laurent, Eugene Arthur, University College.
Lakis, Charles Pardey, St. Bartholomew's Hospital.
Mortimer, J. Desmond Ernest, Westminster Hospital.

Pearce, Walter, B.Sc., St. Mary's Hospital.
Priestley, John, Owens College.
Rhodes, J. Havelock Alex., Liverpool Roy. Infirmary.
Rice, Bernard, St. Bartholomew's Hospital.
Rogerson, John Thomas, Owens College.
Savill, Thomas Dixon, St. Thomas's Hospital.
Stoddart, Frederick Wallis, St. Thomas's Hospital.
Stonham, Thomas George, London Hospital.
Wells, Alfred Ernest, St. Thomas's Hospital.

SECOND DIVISION.

Anderson, Daniel Elie, B.A., B.Sc., University College.
Atkinson, John Mitford, London Hospital.
Bayes, Frederick Thomas, Guy's Hospital.
Blore, Isaac, Owens College.
Boswell, John Irvine, Guy's Hospital.
Brown, James Grierson, Liverpool Royal Infirmary.
Clarke, Walter J., Queen's Coll. Birm. and St. Barth. Hosp.
Currie, Oswald James, Guy's Hospital.
Danniell, Alfred, Edinburgh and Paris.
Dawson, Arthur George, Owens College.
Dobson, Joseph, Leeds School of Medicine.
Griffiths, Philip Rhys, University College.
Hall, Ben, St. Bartholomew's Hospital.
Harper, James, St. Bartholomew's Hospital.
Hopkins, John, University College.
Larmuth, Leopold, Owens College.
Maddison, William Thomas, King's College.
Maitland, Alfred Derwent, University College.
Meeson, Alfred, Liverpool Royal Infirmary.
Northcott, Arthur, University College.
Prothero, Richd., Liverpool Sch. of Med. and Guy's Hosp.
Robinson, Fredk., Leeds School of Medicine.
Rogers, James Macdonald, Middlesex Hospital.
Salmon, Arthur Guy, St. Bartholomew's Hospital.
Sanders, Charles, St. Bartholomew's Hospital.
Scarth, Isaac, Owens College.
Shaw, Lauriston Elgie, Guy's Hospital.
Sisley, Richard, St. George's Hospital.
Sutton, Samuel Walter, St. Thomas's Hospital.
Udale, Joseph James, Guy's Hospital.
Webb, Malcolm, Owens College.

EXCLUDING PHYSIOLOGY.

FIRST DIVISION.

Milligan, Robert Arthur, Guy's Hospital.

SECOND DIVISION.

Dingly, Arthur William, University College.

PHYSIOLOGY ONLY.

FIRST DIVISION.

Barnes, George Frederic, St. Bartholomew's Hospital.
Whiting, John, St. Bartholomew's Hospital.

SECOND DIVISION.

Herschell, George Arieh, St. Thomas's Hospital.
Sellers, William, University of Edinburgh.
Smith, John, Guy's Hospital.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on Aug. 7th:—

Betts, Edward George, Freegrove-road, Holloway.
Bothamley, William Parkinson, Donington, Spalding.
Heaven, John Cookesley, Queen's-square, Bristol.
King, Wm. Henry Tindal, Plymouth.
Nourse, Wm. John Chickell, Clarendon-st., Paddington.
Whitehead, Thos. Kay, Holly Mount, Rawtenstall.

The following gentlemen on the same day passed the Primary Professional Examination:—

Frederick Thomas Bennett, Alfred Robinson, and Arthur Willis, St. Bartholomew's Hospital; William Carr Humphreys, Queen's Hospital, Birmingham; John Alex. Lewis Stephen, St. George's Hospital.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH.—DOUBLE QUALIFICATION.—The following gentlemen passed their First Professional Examination during the July sittings of the Examiners:—

Edwin Simpson, Loch Chou; Harry Albert Murphy, Lancashire; Edwin Douglas, Edinburgh; Charles Pope, Yorkshire; Dugald Christie, Glencoe; Frank Bernard Norris, Co. Cork; George Wm. Daunt, Co. Cork; Mark Anthony Wardle, Stratford-le-Bow; James Satterthwaite, Ulverston; Anthony Snowdon, Helme-park; Edmund M'Donnell, Co. Antrim; Titus Helden Harwood, Burnley; James Charles Bradshaw, Staffordshire; Peter Dunlop, Co. Down; Francis Woore, Guernsey; Miles Wolfe Carr Partrige, Birmingham; Arthur Thos. Nunn, Hampshire; Francis Edw. Ackerley, Liverpool; James Wm. Thornton Gilbert, Calcutta; John Swatman Reynolds, Holton, Suffolk; John Arthur Cornett, Liverpool; Michael Joseph Collins, Cork; Abraham Llewellyn Reece, Barbadoes; James Booth Clarkson, Lancaster; David Wm. Johnston, Whitehaven; Eugene Geary, Cork; Edward Evans, North Wales; John Holt Marsh, Bolton; William Lloyd Reade, Portarlington; Robert Greenwood Dempster, Liverpool; Alexander M'Donald Westwater, Edinburgh; Francis MacDonald Swallow, Isle of Man; Charles Samuel Gibbons, Brocklesby; Frank Cheetham, Rochdale; John Ottley, Co. Cork; Richd. Francis Walsh, Co. Cork; Abercromby M'Beath, Banffshire.

The following gentlemen passed their final examination during July and August, and were admitted L.R.C.P. Edin. and L.R.C.S. Edin.:—

William Crofts, Co. Cork; Valbert Larcher, Mauritius; Wm. David Sheppard, Haverfordwest; Frederick Dunbar Sutherland M'Mahon, St. Vincent; John Joseph MacDonnell, Galway; Alexander Bowie, Edinburgh; William Stevenson, Stirlingshire; Denis Quinlan, Co. Cork; Robert William Anderson, Portsmouth; John Henderson Brannigan, Mayo; James Camac Smyth, Dervock; Alfred James O'Hara, India; Thos. Harrop Roberts, Saddleworth; John Paxton, Norham-on-Tweed; Owen Lynch, Londonderry; Arthur Frederick Wilkins, Madras; James Joseph Delahunt, Huntley, Ballinasloe; Edward North, Hampshire; Angus Munro, Carbost, Inverness; Milbourne Luscombe Bloom Coombs, Devonport; William Cotton Cornwall, Ballygur; William Henry Haley, Lincolnshire; Eleazar Davies, Cwm-Amman; Marshall John Campbell, Colmonell; Humphry Haines, Cork; Philip Durrell Pank, Norwich; Wm. Langford Pruen, Bristol; John Stewart, Co. Armagh; William Ring, Cork; Miles Wolfe Carr Partrige, Birmingham; Egbert Williams, Llandilo; Anthony Snowdon, Helme-park; Jas. MacMullen Bolster, Mallow; Samuel Wallace, Co. Antrim; Geo. Francis West, Co. Fermanagh; George Gibson Hamilton, Falkirk; James Ferguson Wyllie Clarke, Aberfeldy; William Dalziel, South Shields; James Ronayne, Ballyhaunis; Alex. Dryden Moffat, Glasgow; Robert Huntly Campbell, Boulogne; George Skirving, Edinburgh; Peter Slade Kendall, Cornwall; Robert Fawcett Maxwell, Armagh; David Leslie Porter, Londonderry; Alexander M'Naughton, Perthshire; Robert Dover Brunskill, Bampton, Penrith; Sarkies Thaddeus Avetoom, Calcutta; Duncan W. Francis Chisholm, Nova Scotia; John Adolphus Burton, Madras; Edmund Seymour Bricknell, Queenstown; Chas. Paget Hooker, Richmond, Surrey; Robert Joseph Kennedy, Co. Kerry; Joseph Wm. Townsend Anderson, Kurrachee, India.

ROYAL COLLEGE OF SURGEONS, EDINBURGH.—The following gentlemen passed their First Professional Examination in July:—

Alfred Ernest Bartram, Bath; St. John Colwood Bennett, Sussex.

The following gentlemen passed their final examination and were admitted Licentiates of the College:—

John Tubb Thomas, Pontypool; John Edward Hanson, Huddersfield; William Doughty, Coalport; John Edmond Fairlie, Paisley; Wm. Arthur Ormsby Roberts, Carnarvon.

The following gentlemen, having passed the necessary examinations in July, obtained the diploma of Licentiate in Dental Surgery:—

Wm. Armston Vice, Isleworth; Leon Jablonski Platt, Edinburgh.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At examinations held on July 21st and following days the undermentioned gentlemen obtained the diploma in Surgery of the College:—

Edward F. S. Barry, Danby Browne, Samuel Cairns Browne, John Crimmin, John James Curran, Henry Cusack, Henry James Davis, Abraham A. H. Deane, William Deane, Samuel Ernest De Lisle, William Henry Delmege, Francis Joseph Doyle, William Dugdale, Robert Charles Garde Durdin, John Augustine English, W. Henry Evatt, William Fetherstonhaugh, Thomas Finley, Charles Burke Faffney, Charles Henry Hartt, Henry Chalmers Hudson, Michael Kedan, Patrick Joseph Austin Kelly, Michael Joseph Kenny, Michael Kerin, George Mark King, George Robert Lawless, Fredk. W. Lewis, Robert Charles Lyle, W. Henry Christopher Macartney, Patrick Maguire, Lucas Alfred Middleton, Adam Mitchell, Thomas Beattie Moffitt, John Neill, Cornelius O'Brien, Arthur Patrick O'Connor, William O'Donnell, Thomas Wm. Parker, Bartholomew Purdon Philpot, George Read, Daniel Ryan, George Pigott Rogers, John Semple, Edmund Shackleton, Frederick Thomas Skerrett, Michael Smith, George Frederick Alex. Smythe, Frederick Charles Stevenson, Thos. Cathcart Taylor, Horace Robert Townsend, George B. White, Wm. Owen Walsley, Wm. Robert Minchin Young.

COLLEGE OF PHYSICIANS IN IRELAND.—At a special examination held in July the following gentlemen obtained the licence in Medicine of the College:—

James H. Nicholas. | Robert Peel.

ADVICES from Memphis state that the number of fatal cases of yellow fever in the town is on the increase, and causing great public consternation. An epidemic of the disease is reported to be also raging in Tampico, Mexico.

THE Queen and Princess Beatrice visited the Royal Victoria Hospital, Netley, on Tuesday last. Her Majesty addressed a few words of encouragement to the invalids and wounded who had arrived from Zululand, and, in the presence of many of the patients who were paraded in front of the hospital, presented the Victoria Cross to Private Hitch, one of the gallant defenders of Rorke's Drift.

ROYAL COLLEGE OF SURGEONS.—The following Fellows of the Royal College of Physicians have been nominated for election to the office of Examiner in Medicine at the Royal College of Surgeons, in the room of Dr. Sieveking, resigned—viz., Dr. W. H. Broadbent, of St. Mary's Hospital; Dr. William Howship Dickinson, of St. George's Hospital; and Dr. Samuel Jones Gee, of St. Bartholomew's Hospital. There appears to be no diminution in the number of candidates going in for the preliminary examination, as we hear 300 names are entered for the Membership, and nearly 150 for the Fellowship of the College. The examination will be held at the University of London, Burlington-gardens, on Tuesday, Wednesday, and Thursday, the 2nd, 3rd, and 4th September.

Medical Appointments.

ANNINGSON, B., M.D., has been reappointed Medical Officer of Health for the Cambridge Urban Sanitary District, at £250 for one year.

BLAMEY, J., M.R.C.S.E., L.S.A.L., has been appointed a House-Surgeon to the West London Hospital, vice Warrillow, resigned.

BULLOCK, C., L.R.C.P.L., M.R.C.S.E., has been appointed House-Surgeon to the Windsor Royal Infirmary, vice Colenso, resigned.

CARR, W., M.B., L.R.C.S.Ed., has been appointed Medical Officer to Court Hutcheson of the Ancient Order of Foresters, Glasgow, vice Carmichael, resigned.

CLARK, Miss A., M.D., L.K.Q.C.P.I., & L.M., has been appointed Assistant House-Surgeon and Registrar to the Children's Hospital, Birmingham, vice Rutherford, resigned.

LEE, J. H., L.A.H.D., has been appointed Resident Medical Officer to the Limerick County Infirmary, vice Holmes, resigned.

LUNN, J. R., L.R.C.P.L., M.R.C.S.E., L.S.A.L., has been appointed Resident Clinical Assistant to the East London Hospital for Children and Dispensary for Women, Shadwell, vice Morse, resigned.

MORGAN, J. H., F.R.C.S.E., has been appointed an Assistant-Surgeon to the West London Hospital.

NEWMAN, J. J., L.R.C.P.L., M.R.C.S.E., has been appointed House-Surgeon to the Croydon General Hospital, vice Richardson, resigned.

PEARSON, T. R., M.D., L.R.C.P.Ed., has been appointed Medical Officer to the Teesdale Ironworks, South Stockton-on-Tees, vice Laidler, deceased.

ROBINSON, G. W., L.R.C.P.L., M.R.C.S.E., L.S.A.L., has been appointed House-Surgeon to the Royal Portsmouth, Portsea, and Gosport Hospital, vice Poynder, resigned.

SAYER, T., M.B., C.M., has been appointed Medical Officer and Public Vaccinator for the Brough District of the East Ward Union, vice Buntine, resigned.

SMITH, W. B., L.R.C.P.Ed., F.R.C.S.Ed., has been appointed an Honorary Medical Officer to the Stockton Hospital, vice Laidler, deceased.

STODDART, W. W., F.C.S., has been reappointed Public Analyst for the City of Salisbury, at £25 for one year.

VIVIAN, R. T., M.R.C.S.E., has been appointed House-Surgeon to the Male and Out-patient Department of the London Lock Hospital, vice Lockwood, resigned.

WOOD, F. H., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer of Health for the Wakefield Rural Sanitary District, at £100 per annum.

Births, Marriages, and Deaths.

BIRTHS.

DAWSON.—On the 7th inst., at Brighton, the wife of Richard Dawson, M.B., of a son.

HILL.—On the 3rd inst., at Oldham, the wife of Dr. R. B. Hill, of a son.

IRONSIDE.—On the 1st inst., at Highbury New Park, the wife of Robert Adrian Ironside, M.B., of a son.

MACVIE.—On the 5th inst., at Herbert Knowe, Chirnside, Berwickshire, the wife of Samuel Macvie, M.B., of a daughter.

OVENS.—On the 2nd inst., at Woodville, Gortatlea, co. Kerry, the wife of John Coote Ovens, F.R.C.S.I., of a daughter.

TEEVAN.—On the 8th inst., at Netherwood-road, Hammersmith, the wife of Alfred Teevan, M.R.C.S.E., of a daughter.

MARRIAGES.

JEPSON—GILLIAT.—On the 31st ult., at St. George's, Leeds, Edward Jepson, M.R.C.S.E., to Jessie Maria, daughter of the late George Gilliat, Esq.

MACKENZIE—DULLEY.—On the 31st ult., at St. Luke's, Wellingborough, Stephen Mackenzie, M.D., to Helen, daughter of Benjamin Dulley, Esq.

DEATHS.

AMBROSE.—On the 25th ult., on board the s.s. *Senegal*, off Goree, Michael Daly Ambrose, L.F.P.S.G.

BLACK.—On the 13th inst., at Mauldalie Cottage, Eskbank, Jane, relict of the late Dr. James Black, F.R.S.E., of 2, George-square, Edinburgh, aged 88. Friends will please accept this intimation.

BLYTH.—On the 6th inst., at Narrandera, New South Wales, Howard Blyth, M.B., aged 24.

ELLIOTT.—On the 2nd inst., at Cathedral-square, Waterford, John Elliott, M.B., aged 76.

HARTLEY.—On the 11th inst., at 3, Bar Houses, Beverley, John Hartley, M.D., aged 66.

LEAHY.—On the 3rd inst., at Carriglea, Killarney, Dr. Edward Leahy, aged 63.

LYLE.—On the 16th June, at Pretoria, Transvaal, Dr. John Vacy Lyle, formerly of Launceston, Cornwall, aged 52.

MAUND.—On the 11th inst., at Westmount, Sandown, Isle of Wight, Henry Maund, M.D., in the 52nd year of his age.

SCATCHARD.—On the 6th inst., at Boston Spa, near Tadcaster, Yorkshire, Thomas Scatchard, M.R.C.S.E.

SYMES.—On the 5th inst., at Bridport, George Symes, M.D., aged 80.

THOMSON.—On the 22nd ult., at Mogador, Morocco, Henry A. R. Thomson, M.R.C.S.E., formerly of Penge.

THOMSON.—On the 5th inst., at Washington House, Guildford-street, Russell-square, Charlotte, the beloved wife of James Archer Thomson, M.B., C.M., and second surviving daughter of Robert Walker, Esq., of Stratford-on-Avon.

N.B.—*A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.*

Notes, Short Comments, and Answers to Correspondents.

THE LOCUM TENENS.

OUR correspondent of August 2nd was, doubtless, right when he said that both he and other medical men would take an annual holiday if only they could be sure of securing a trustworthy locum tenens. There is, however, another side to the question, which our readers will find stated in a very lively way in the letter of "An Old Locum Tenens" in THE LANCET of July 19th. The latter gentleman regards the *locum tenentes* as the class that is wronged, and entitled to our sympathies; and he certainly gives a very graphic account of the frequent differences between the work they find has to be done and that which they were led to expect they would have to do. There is much to be said in all such cases for giving the *locum tenens* an interest in the amount of work done, so that if midwifery cases or other forms of hard work crowd upon him in the principal's absence, he may have no sense of having been misled or deceived, or of working unprofitably. But the grievance of misrepresentation on the part of practitioners of the amount and kind of work to be done in no way gets rid of the kind of complaint made by "A General Practitioner" in THE LANCET of August 2nd, who says that three out of four "locums" have been "most unsatisfactory"; that one friend was fetched home by telegram because the "locum" was intoxicated; and that, in the case of another friend, the "locum" *arrived* in a similar state. Most remarkable of all, all these "locums" were from leading agents. This fact points to the real remedy—a little more care and trouble on the part of the agents in ascertaining, on the one hand, the character of the locum tenens; and, on the other, the exact nature of the work he has to do. Medical agency is in too developed a stage nowadays to be unable to form a better estimate of such questions. The demand and the payment for good "locums" are sufficiently great now to make it reasonable to expect men undertaking such duties to be as sober and in every way as respectable as other young practitioners. General practitioners themselves should be faithful in acquainting "agents" with the real character of the men they send. In this way there would be much more demand for "locums" than at present, and much less disappointment on both sides of the transaction when they are engaged.

Dr. J. B. Gill.—The case will be published next week.

THE BIRMINGHAM EYE HOSPITAL.

To the Editor of THE LANCET.

SIR,—At the annual meeting of this institution, which was held last Monday, under the presidency of Lord Norton, very satisfactory statements were made as to the growing usefulness and prosperity of the charity. Its subscription-list, which in 1870 was £1126, amounts this year to £1390; and whereas in the former year a mortgage debt of £3000 was in existence, it has since been extinguished, and a reserve fund of £4000 created. The governors and officers agree that these figures are highly satisfactory; but the unanimity does not extend to everything concerning the hospital. Its building is defective. Originally the Royal Hotel, part of it has been adapted for in- and out-patients, while the remainder is still let off as an hotel. Admitting that a new hospital is needed, the question is, where shall it be erected. The site, which is the freehold of the charity, consists of 980 square yards, of which the hotel occupies 600 yards, and the hospital about 300. One proposition is to rebuild the hospital on the 300 yards which it now occupies, raising every floor, and putting two extra storeys on the top, still letting off, for benefit of income, the larger or hotel part, which, with its licences and goodwill, is of great value. To this it is objected that to raise the building on the old foundation in a crowded thoroughfare, with defective ventilation, consequent upon the close proximity of high buildings, is a mistake. Far better sell the present site, with its valuable licences, and build a totally new hospital on more spacious and commercially less valuable ground. Such a proposal has obviously much to recommend it on economical and sanitary grounds. Yours &c.,

Birmingham, August, 1879. SANITAS.

Enquirer.—Puerperal mania does not transmit general hereditary tendency to insanity; but the same physical constitution which created a susceptibility to puerperal mania in the mother will probably exist in the daughters.

Non est Inventus has not authenticated his letter.

MR. JACKSON, OF SWYMBRIDGE.

To the Editor of THE LANCET.

SIR,—Four or five years ago a medical man of the above name appealed through your columns for aid, he being in poor circumstances at that time. If Mr. Jackson still lives, and requires assistance, by communicating with me he can hear of something that will perhaps benefit him.

Yours truly,

West Gorton, Manchester, Aug. 9th, 1879. F. SAUNDERS.

CLINICAL EXAMINATIONS AT THE ROYAL COLLEGE OF SURGEONS.

AT the pass examinations for the diploma of Membership of the above College, which has just been concluded, the following cases, some of them of great interest, were submitted to the candidates:—Necrosis of the superior maxillary bone from phosphorus; syphilitic ulcer of the tongue; hydrocele of the cord; a bad case of hæmorrhoids; compound dislocation of the thumb; gumma on the tongue; necrosis of the skull; inflammation of the shoulder-joint; club-feet; inflamed testicle; nævus inside the cheek (this and a large nævus of the upper lip were too frequently diagnosed as cancer); lymphadenoma; syphilitic necrosis of the skull; syphilitic iritis; varicocele; strumous disease of the testicle; swelled testicle; abscess below the jaw; molluscum; tumour in the groin, probably omental; operation for genu valgum; inflammation of the lymphatics of the forearm and arm; strumous testis; enlarged inguinal glands; anchylosis of the shoulder; syphilitic ulceration of the tongue; inflammation of the wrist; ulcer on the leg; secondary syphilis; enlargement of popliteal bursa; hydrocele with enlarged testicle (puzzling to several); necrosis of external condyle of humerus, with secondary affection of elbow-joint; cyst in lower lip, with inflammation of the conjunctiva; fibrous tumours on various parts of the body; hæmatoma of the cheek; specific eruption on the skin; strumous disease of both testicles; strumous abscess over external ankle; tumour in the calf, with abscess in the groin; abscess near the lower jaw after extraction of tooth; orchitis; senile gangrene of fingers; chronic hypertrophy, with induration of the skin of the leg; double hydrocele; tumours, probably gummatous, on various parts of the body; lupus of the face; opacity of cornea, with granular lids; syphilitic induration of testicle and cord; old fracture of the tibia and fibula, with dislocation of the foot; undescended testicle, with hydrocele on the other side; strumous disease of the knee-joint; in-growing nail; opacity of the cornea; alveolar abscess; iritis; &c. The President, Mr. Luther Holden, most courteously received all Fellows desirous of seeing how these examinations were conducted, and several metropolitan and provincial Fellows availed themselves of his kindness. It is stated that out of the 223 candidates examined in Surgery, the rejections amounted to 71.

Inquirer.—Various methods are adopted. Consult a surgeon.

THE LLANDUDNO IMPROVEMENT ACT.

To the Editor of THE LANCET.

SIR,—I have much pleasure in calling the attention of my professional brethren and the public generally to the following important clauses in the Llandudno Improvement Act, 1879, just obtained. This application was made by the Improvement Commissioners at my request when acting as medical officer of health, and I trust they will see the propriety of carrying out as soon as possible another equally important suggestion, and erect a suitable hospital in a suitable situation for the reception and treatment of infectious diseases, for which purpose the owners of the soil have generously offered a piece of land at a nominal rent. It is also worth mentioning that the Registrar-General has at length kindly consented to do justice to us in the matter of our mortality statistics, and will in future insert a paragraph in his Quarterly Returns, showing the nature and number of deaths occurring in Llandudno proper, apart from the other seven parishes with which Llandudno has hitherto been classed, under the title of the "Creuddyn" sub-district.

"*The Llandudno Improvement Act, 1879.*

"SECT. 14.—If an inmate of any house or building situate within the district be attacked by any of the diseases hereinafter mentioned (that is to say), small-pox, cholera, diphtheria, typhus fever, typhoid fever, or scarlatina, that as soon as the nature of such disease has been ascertained, notice in writing in the form to be adopted by the Commissioners, and to be gratuitously supplied by them, addressed to the Clerk to the Commissioners, stating the nature of the disease, the name of the person affected, the house or building of which such person is an inmate, and the name of the person being the occupier or having the control or management of such house, shall be given by . The owner or occupier or other person having the management or control of the house or building of which the person attacked by any such disease is an inmate, or in the event of the person so attacked being the owner or occupier or other person having the management or control of such house or building, then by the person or persons having charge of such person attacked, and by . Any legally qualified practitioner called in to attend or attending any person attacked by any such disease . And any such owner, occupier, or other person, and any legally qualified practitioner failing or neglecting to give such notice shall for such default in giving such notice be liable to a penalty not exceeding ten pounds.

"SECT. 15.—Every legally qualified medical practitioner giving notice to the Clerk to the Commissioners pursuant to this Act of the existence of any of the hereinbefore mentioned diseases within the district shall for every case in which he gives such notice be entitled to a fee of two shillings and sixpence, to be paid by the Commissioners."

I remain, SIR, your obedient servant,

JAMES NICOL, M.D.,
August, 1879. Late Medical Officer of Health.

POISONOUS WALL-PAPER.

WE have often protested against the employment of poisons in the manufacture of wall-papers, and given instances of the fatal effects that have resulted therefrom. A case has lately occurred at Emneth, in Cambridgeshire, which gives a novel aspect to the danger, and further demonstrates the virulence and the degree of strength of the poisons employed. In the course of a general house-cleaning, some green paper had been taken from the walls and thrown in a yard where some cattle were kept. The colour, it seems, tempted three of the beasts. They ate a small portion, and soon manifested acute symptoms of poisoning. Two died before the veterinary surgeon could be brought to the spot, and the third, though it lingered, could not be saved. A post-mortem confirmed the belief that the paper had been the cause of these deaths. Of course there is a great difference between eating paper and hanging it on walls; but human beings are more easily poisoned than cattle, and a larger quantity is required to cover the four walls of a room than the mouthful or so consumed by the cattle. The arsenic is easily detached from the paper, and it is often a mere matter of accident whether or not the poison will come sufficiently in contact with the inmates of a room to produce evil results. It will, however, take a great many more disasters to educate the public to the point of demanding the inspection and control of manufactories of paper likely to endanger health.

V. G. M.—We shall deal with the subject generally later on.

UNIVERSITY DEGREES FOR QUALIFIED MEN.

To the Editor of THE LANCET.

SIR,—Now so much is being written and said on the subject of medical titles, I am glad to find some of your correspondents offering a practical solution of the difficulty by suggesting modified examinations for the degree of Doctor of Medicine.

There are many men, like myself, who have been some years in practice, holding with other qualifications that of licentiate of one of the Colleges of Physicians, and who have always been styled "Dr." by their patients, although they never have assumed the title. In fact, to the public, the University and Collegiate qualifications are identical; still, to the practitioner holding the latter, it is not pleasant to have a title to which he feels only University graduates are justly entitled.

Now, there are many of us who would willingly submit to an examination in all the professional subjects as stringent as is required from students in order to get the "M.D.," and I think this opportunity the Universities, or some of them, might fairly offer to men who have been in practice ten years; but it is quite impossible for men in large practice to waste time in getting up Latin and educational subjects which they have never seen since they passed their preliminary examination—surely a sufficient test in a matter of this sort, the object of which is to prove a man a good physician, not a good classic. Yours truly,

August, 1879. L.R.C.P.

*** We sympathise much with our correspondent and others who resist the temptation, evidently too much for many, to use the title which attaches only to the possession of a degree from a University. We agree with him that there should be a modified examination for degrees in medicine in favour of practitioners; but we scarcely think that Latin and all other subjects in general education should be excluded from the examination. These should have a place in the examination, but a modified one. A degree will never be worth anything if it is not, more or less, a distinction; and our view is this: that any man who is capable, after being in practice ten years, of passing an examination—the passing of which will be a distinction—will be capable of passing a modified examination in subjects of general education. Our correspondent underrates his powers. It is necessary in establishing a degree for practitioners to do nothing that tends to lower, or to lessen the demand for, degrees gained by University residence or by students. It seems to us that if the Durham degree were granted to practitioners of ten years' standing, they might well be satisfied.—ED. L.

THE MURCHISON MEMORIAL FUND.

THE following subscription has been received at THE LANCET Office on behalf of the above:—

Surgeon-Major Grant, London £1 1 0

Dr. P. J. Freyer.—The paper is marked for insertion.

Mr. Walter Pye.—Thanks.

EPSOM COLLEGE.

To the Editor of THE LANCET.

SIR,—May I venture, through the medium of your journal, to suggest that there should be, in addition to the usual hospital dinners in October, an old Epsomian dinner, and that our late Head Master, the Rev. Dr. Thornton, now Vicar of St. John's, Notting-hill, should be invited to take the chair. In the busy round of general practice, one has little or no chance of having a chat with old school-fellows, than which, to my mind, there is nothing more enjoyable. I feel confident that numbers of old boys will share this sentiment; so I will only, in conclusion, beg leave to propose that a Committee be at once formed to carry out all necessary preliminaries. Your obedient servant,

Ringwood, August 4th, 1879. H. GEARY DYER.

DISINFECTION AT SHEFFIELD.

In spite of reiterated protests on the part of the medical officers of health, no effort has yet been made to provide Sheffield with a public disinfecting apparatus. Some districts of the town are in anything but a satisfactory state, notably Hanner-lane, where the houses are in a filthy condition, unsewered, and the source of frequent outbreaks of zymotic disease. Sylvester-gardens is also in a very unfavourable condition, and it is time the sanitary authorities determine to strengthen the hands of the medical officers, so that the Public Health Act may be carried out with more vigour.

Mr. John Wilson.—Consult a registered surgeon, and pay him his fee.

Mr. R. Waters.—Many thanks.

NITRITE OF AMYL IN SEA-SICKNESS.

To the Editor of THE LANCET.

SIR,—If there be safety in the multitude of counsellors, there is perplexity in the multitude of debaters. No sooner does one experimenter establish the reputation of a new remedy than another is ready with iconoclastic zeal to bring the whole structure to the ground. Mr. Crochley Clapham, after a long series of experiments, conducted apparently with great care, comes to the conclusion that "with due attention to details" nitrite of amyl is "curative in 90 per cent. of cases of sea-sickness" (THE LANCET, June 7th, 1879). Dr. Rudd Leeson and Dr. Crichton Browne speak of this remedy in terms of almost equal confidence. The character of these observers and the care employed in their observations were sufficient to convince many people, and myself amongst the number, that in nitrite of amyl we had at any rate found a useful addition to our medical armamentarium. But alas for the hopes of sanguine practitioners! Dr. C. R. Illingworth has adventured himself on the deep. With his well-known promptitude and independence of mind, he has made an experiment. One touch of his magic wand, "Hey presto," and the illusion vanishes! The doctor administered a capsule, doubtless with the full expectation of a triumphant cure. Instead of which he finds that "the effect is only temporary; the sympathetic recovers its tone over the vessels, and the patient is as he was before." Cruel sympathetic! After this elaborate experiment, who can wonder that Dr. Illingworth should ask, "Is it then desirable to continue the inhalation two or three times a day?" Surely not! If one dose fails to settle the irrepressible sympathetic, why try a second or a third? Doubtless the benighted physicians of a former age have advised and practised the repetition of medicines, even though the first dose had only produced a "temporary" effect. But they were not scientific. We, who are much more enlightened, must conclude with Dr. Illingworth that "for my part I would rather get over my day or two of occasional vomiting without the remedy."

Would it be impertinent to suggest that *one case* is not always conclusive? One might perhaps also ask if the precautions advised by previous experimenters had been carefully observed—e. g., whether or not one fit of vomiting had been allowed to occur before the treatment was commenced, and whether or not the patient was in bed, as advised by Mr. Clapham? No one who knows Dr. Illingworth can fail to admire his honest and independent zeal; but it might be pardonable to remind him that the scientific world usually attaches some slight value to observations and experiments which have been frequently repeated. When he has treated as many cases as Mr. Clapham, and with the same degree of care, practitioners will be more grateful for the results of his experiments.

I am, Sir, yours faithfully,

Grosvenor-road, N., Aug. 6th, 1879. GEO. W. POTTER, M.D.

To the Editor of THE LANCET.

SIR,—It appears that certain gentlemen have been recently communicating to your journal their "experience" of the value of nitrite of amyl in sea-sickness. I should like to be allowed to remark that it is only on the opinions of men who have really had "experience" in such matters that we can place any reliance. For instance, there are lots of gentlemen of our cloth who have crossed the Atlantic scores of times, and who have had much more "experience" than young gentlemen taking trips to the Channel Islands and Madeira, and who I am sure would be glad to give their opinions of nitrite of amyl or any other drug in sea-sickness if required.

I have not been without "experience" on the high seas, and I can assure all healthy young people (such as I presume certain correspondents are) that after their system is habituated to the sudden change from land to sea life (which after the first two days at sea it certainly will be), they will neither require nitrite of amyl nor any other drug to allay sea-sickness, nor will they need to communicate their very immature "experience" to medical journals on the subject. A good blow on the quarter-deck of a mail-steamer will suit such far better, whilst the surgeon of the same will prove a far more "experienced" judge of the value of nitrite of amyl or anything else in sea-sickness than themselves. I write this because I am convinced that when medical men write about the value of certain drugs in certain cases, it should not be after they have made single experiments, but when they are really capable of expressing a valuable opinion as to the efficacy or inefficacy of any remedy. Such inadequate statements only tend to mislead instead of benefiting medical practice.

In conclusion, I must, in justice to myself, remark that I have administered nitrite of amyl in fifteen cases of sea-sickness, but have not as yet felt myself entitled to express any opinion as to its merits therein.

Yours faithfully,

Brighton, Aug. 8th, 1879. J. D. BRADBURN, F.R.C.S.E., &c.

Dr. A. Ogston **and** ***Mr. J. G. Smith.***—Competing essays for the prizes of the Academy of Medicine of Paris must be written either in French or Latin. They must be accompanied by a sealed envelope, containing the name of the author, and bearing the same motto as the essay. Any candidate making himself known to the judges becomes *ipso facto* disqualified. This regulation does not apply to the Godard, Barbier, Huguier, Desportes, and Barguet prizes, for which printed works may compete. Works by foreigners are not allowed to contest for the Barguet and Huguier prizes. For further information apply to the Secretary of the Academy, Dr. Bergeron.

Nauticus.—The works on the subject named are numerous. We must refer our correspondent to the advertising columns of THE LANCET for the information he seeks.

MEDICAL EXAMINATIONS AT THE UNIVERSITY OF DURHAM.

To the Editor of THE LANCET.

SIR,—Would you kindly allow me to trespass on your valuable space with a short reply to Mr. Crick's letter in your last issue. I will take two sentences at random:—

1. "A letter characterised Durham as a *dernier ressort* for men."
2. "Durham University is in need of no trumpeters."

From the first, I infer that Durham is weak, and in need of trumpeters; and from the second, after your correspondent's letter, none are required.

I feel flattered at having written "as a veteran of forty years' standing," and therefore must have written something to the point. Mr. Crick will oblige me by reperusing my letter. He will find an entire explanation and a refutation of his interpretation of my meaning of the paragraph, "Age carried honour," &c. &c., in the following sentence: "I believe, Sir, if the Senate would allow *no modified* examination, and take the same fees for the degree as they do from students, we have practitioners who would pass through the ordeal of the first and second M.B. and then the M.D."

If Mr. Crick knew the requirements of the London University, he would not be modest enough to suggest that I should enter for the degree. Why did he not do so? and then there would have been no necessity for a letter on the *severity* of its examinations. He would then not only have had a respectable, but also a very high class degree. You know, Sir, that it is the study required *after* passing the matriculation examination that puts the degree out of a general practitioner's reach.

What can your correspondent mean when he writes: "That men presenting themselves for examination should be examined with different degrees of severity according to their several ages"? This is entirely contrary to what I wrote, and is what I asked to be abolished. It is, therefore, evident from one of Durham's graduates that the age clause and a larger fee mean a modified examination, and this surely will not raise Durham in the eyes of the profession. We had this before at the ancient and respected University of St. Andrews, although limited to *ten* in one year.

Mr. Crick, being newly fledged, thinks that none except such as he could undergo anything but a *modified* examination. But I have seen, Sir, University graduates put to shame by practitioners, licensed by Corporations, in such subjects as Botany and Natural History. Your correspondent should spare his *pity* for some one more worthy of it than I am. I have taken out the curriculum for the degree of M.B.; therefore do not require to wait for Durham's liberality. What I desire to see, however, is some use made of, and benefit derived from, an institution which is practically at present *useless*. That it will extend its arms to such as are worthy of its maternal care, without such restrictions as residence or grey hairs, is the wish of,

Yours truly,

Wigan, August 11th, 1879. WM. BERRY.

P.S.—I always like to see after a man's degree or qualification, its source. For instance, if he be M.D. Brussels, let him say so, and not put merely M.D., which I see frequently done.

One who has Failed **complains that the examinations in Surgical Anatomy at the second examination for the Membership of the Royal College of Surgeons are too difficult, and not sufficiently precise. He may have some grounds of complaint in the vague manner in which the requirements are set forth; but he cannot expect much sympathy in the desire that by passing in Anatomy at the first examination, he shall secure "immunity from the subject of Anatomy" *for ever*.**

THE APPLICATION OF BERNOUILLI'S LAW TO AERIFORM FLUIDS.

To the Editor of THE LANCET.

SIR,—In your number of July 12th the report of the lecture on the application of Bernouilli's law, if correct, shows results which would lead to some very startling conclusions.

The fact is, Bernouilli's law appears to be a false deduction from accurately observed facts, and is in its theoretical application apt to lead astray. One of the fundamental laws of fluids, that pressure is equal in all directions, requires that a fluid moving through a tube should exert a pressure on the sides equal to that exerted in the direction of its course. The velocity of a stream through an opening depends upon the effective head above that opening. Take the illustration No. 2, p. 40, and suppose the fluid represented to be water, let the pipe A B be the connexion between two reservoirs of different level; the height of water

in tube E is the head of water against which stream A B is moving; call it ten inches or feet, and let it remain constant. The contraction at F holds back the pressure of the water in the more elevated reservoir, and the height of the water in tube C will show what the proportion is between the contraction and the full diameter of the tube; but the height of water in C must always be higher than in E. The velocity of the stream passing through F will depend on the height of the upper reservoir, but will always have to meet the pressure at E, and the pressure on the tube at F will always be that due to the head in E, let the velocity be what it may. Let the contraction at F be in the shape of a short cylindrical tube, so that the column of water in the tube D shall be perpendicular to the stream lines passing through F. The height of water in D is less than in E, and the greater the velocity of the stream in F, the lower it sinks. True; but that does not show the pressure is less; it only shows the friction is more. The difference between the height of D and E shows that the friction between fluids varies with the speed, instead of being constant as with solids, and such an apparatus could be made to show how weight and speed govern friction in fluids. It is plain that the column of water in D being at rest on a stream in rapid motion, the atoms of water set in motion by the friction will be carried off in the stream, there being no intermediate direction in which they can move. Their loss will diminish the height of water in D until the upward pressure is sufficient to confine the moving atoms to eddies formed in the foot of the upright tube, in which they will exhaust their acquired velocity. To make the height of the column D a fair test of pressure requires the introduction of a film between the water in D and F to prevent the bottom of D being ground off as it were. The action of all injectors depends on friction. Some instructive lessons might be learned if various fluids were employed, as oil and water &c., or steam and water, so as to determine the amount of friction due to each.

I am, Sir, yours &c.,

Plymouth, August, 1879. CHAS. THONGER.

THE SHEPHERD MEMORIAL FUND.

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Civil and Military Gazette, Britannic, Western Morning News, Englishman, Night and Day, Church of England Temperance Chronicle, Gardeners' Magazine, Shield, Whitehaven News, National Board of Health Bulletin, Yorkshire Post, Warrington and Mid-Cheshire Examiner, Catholic Times, Daily Free Press, Retford, Worksop, Isle of Axholme, and Gainsborough News, Plumber and Sanitary Engineer, Manchester Courier, &c., have been received.

METEOROLOGICAL READINGS.

(Taken daily at 8 a.m. by Steward's Instruments.)

THE LANCET OFFICE, August 14th, 1879.

Date.	Barometer reduced to Sea Level, and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb	Solar Radia in Vacuo	Max. Temp Shade	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Aug. 8	29·84	W.	62	58	87	68	55	0·08	Overcast
,, 9	29·91	N.	57	52	97	67	52	..	Fine
,, 10	30·03	W.	62	58	104	73	50	..	Fine
,, 11	30·03½	E.	64	60	93	73	58	..	Overcast
,, 12	29·96	E.	66	60	108	77	57	..	Fine
,, 13	29·86	S.E.	65	61	107	78	57	..	Fine
,, 14	30·06	N.W.	67	61	104	77	61	..	Hazy

Medical Diary for the ensuing Week.

Monday, Aug. 18.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M. each day, and at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M. each day, and at the same hour.
ST. MARK'S HOSPITAL.—Operations, 2 P.M., and on Tuesday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

Tuesday, Aug. 19.

GUY'S HOSPITAL.—Operations, 1½ P.M., and on Friday at the same hour.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.

Wednesday, Aug. 20.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M., and on Saturday at the same hour.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at 1 P.M.
LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M., and on Saturday at the same hour.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2½ P.M.

Thursday, Aug. 21.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—1½ P.M. Surgical Consultations.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

Friday, Aug. 22.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 2 P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
QUEKETT MICROSCOPICAL CLUB.—8 P.M. Ordinary Meeting.

Saturday, Aug. 23.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

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